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Preparatory process for the Conference

A REVIEW OF FOOD AND AGRICULTURE IN THE LEAST DEVELOPED COUNTRIES

Contribution by the Food and Agriculture Organization
of the United Nations (FAO) */

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A REVIEW OF FOOD AND AGRICULTURE IN THE LEAST DEVELOPED COUNTRIES IN THE 1980s

FAO CONTRIBUTION TO THE SECOND UNITED NATIONS CONFERENCE ON THE LEAST DEVELOPED COUNTRIES

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Introduction

The Substantial New Programme of Action (SNPA) for the 1980s for the Least Developed Countries (LDCs), conceived by UNCTAD V in Manila in 1979 and adopted in September 1981 by the First UN Conference on the LDCs, was intended to deal boldly with long-term development problems of LDCs in four main areas: structural change, social needs, transformational investment and emergency support.

The Conference, which received active FAO support in its preparation and proceedings, recognized that food and agriculture and rural development should receive the highest priority in the national development plans and strategies of the LDCs. It recommended the provision, where necessary, of increased budgetary resources for agriculture and related activities such as food and livestock production, fisheries and forestry as well as priority implementation of policies and programmes for greater people's participation in development, improving rural social infrastructure and enhancing the role of women in rural development. The international community was called upon to provide increased technical and financial assistance as well as to introduce more liberal policies towards commodity trade.

A mid-term review of progress in these areas was carried out at a special meeting held in Geneva in October 1985. At this meeting, food and agriculture were found to be critical areas. Not only did agricultural output growth in the LDCs (2.4% during 1980-85) fall far short of the SNPA's objective of 4% a year during the 1980s, but per caput food production actually declined almost 0.5% a year. Only seven of the then 36 LDCs recorded positive growth in per caput food output. The review re-iterated the need for introducing coordinated and focused food strategies for the LDCs, particularly in the areas of promoting cooperative development, appropriate price policies for agricultural inputs, and measures to ensure the full participation of the rural population--especially that of women. Donors were urged to make firmer commitments of technical, financial and food aid that should be integrated into long-term agricultural and food development plans.

The Second UN Conference on the LDCs, to be held in 1990, will undertake an end of term review of progress in the implementation of the SNPA for the 1980s. To this end, the UN General Assembly requested all concerned organizations of the UN system to submit reports on the implementation of the SNPA for the 1980s for the LDCs within their fields of competence.

In accordance with this request, the present FAO contribution assesses food and agricultural performances of LDCs during the 1980s; examines internal and external factors associated with such performances; and reviews macro-economic and sectoral policy measures introduced by LDCs governments as part of their programmes for agricultural development, as well as economic stabilization and structural adjustment.

I. PLACE OF FOOD AND AGRICULTURE IN THE ECONOMIES OF THE LDCs

Overview

The LDCs are an extremely heterogeneous group of countries.1/ Their population size ranges from less than one million to over 100 million inhabitants, three countries alone accounting for half of the group's population. Fifteen countries are land-locked and eight are island states. Two-thirds of them are in Africa, only one in Latin America and the Caribbean, four are Pacific islands.

Notwithstanding such diversity, the LDCs share a number of characteristics, of which several have a bearing on agriculture. Being by definition on the periphery of development, they are all very poor with large segments of their population suffering severe nutritional, health and educational shortcomings (**Table** 1).2/ Most are heavily dependent on agriculture, largely at a subistence level, output of manufacturing activity being extremely limited. Export trade is in most cases confined to a few, basically primary products. Although some have a large agricultural, mineral and hydro-electric potential many suffer from major geographic and climatic handicaps. Finally, many LDCs also have had in common dismal agricultural performances in recent years. Indeed, a conclusion of this report is that the gap between these countries and other developing countries, let alone the developed world, has been growing during the 1980s on many important accounts.

How dependent on agriculture are the LDCs? For most countries, the predominance of the sector appears paramount as a source of employment, if generally less so as a contributor to GDP and export earnings. Despite slower growth of the agricultural than of the total population, the share of the total labour force employed in agriculture remained over 75% by the mid-1980s. The share of agricultural GDP in total GDP for the LDCs as a whole was around 44% in recent years; and the agricultural sector generated approximately half of the total export revenue. Thus, while agriculture is a primary employer of labour, it is a far less significant generator of wealth, pointing to very low levels of labour productivity and average incomes in agriculture in relation to other sectors.

These general characteristics of LDCs conceal wide country variations, however. In a few countries such as Uganda and to a lesser extent Mali, agriculture provides a major, and relatively balanced contribution to employment, GDP and export earnings (**Table** 2). In contrast, other countries present extremely asymmetric profiles. For example, agriculture employs nearly two thirds of the active population in Botswana and almost 80% in Djibouti, but generates only 5-7% of the national income in these countries. In several other countries, including Burma, Equatorial Guinea, Mozambique, Malawi, Ethiopia, Somalia, Sudan and Pacific Islands, agriculture contributes much more to export earnings than it does to employment or GDP.

1/ There were 30 LDCs in 1980, 36 by mid-decade and 42 by end 1988, this last figure being the number of countries surveyed here.

2/ The derivation of the four country groups shown in Tables 1 and 2 is explained in the text accompanying Table 3.

TABLE 1. LDCs, SELECTED SOCIO-ECONOMIC INDICATORS, 1970 AND 1987

	GNP p.c.		Life expectancy		Urban % Tot. population		Secondary school enrolment	
	1970	1987a/	1970	1987b/	1970	1985	1970	1987a/
	Current US$		Years		%		%	
Kiribati	...	450	...	52.0	26.3	33.0	...	...
Cape Verde	160	500	56.0	65.3	5.6	5.3	...	13.0
Burma	80	190	51.0	58.8	22.8	23.9	21.0	24.0
Samoa	140	710	...	64.6	...	...	...	...
São Tomé & Princ.	390	310	...	63.0	24.0	38.0	...	...
Gambia	100	220	37.6	43.4	15.0	20.1	7.0	20.0
Yemen Dem.	120	420	40.0	50.7	32.1	39.9	...	19.0
Laos	120	170	40.0	45.0	9.6	15.8	...	19.0
Yemen Arab Rep.	80	590	38.5	46.0	7.5	20.0	1.0	10.0
Uganda	190	220	46.5	48.2	7.8	9.5	4.0	8.0
Botswana	150	1 050	49.5	59.2	8.4	19.2	7.0	29.0
Togo	140	290	44.2	53.1	13.1	22.1	7.0	21.0
Group I	**152**	**448**	**44.8**	**54.1**	**15.7**	**22.4**	**7.8**	**18.1**
Malawi	60	170	40.0	45.8	6.0	12.0	4.0	4.0
Niger	160	260	38.3	44.6	8.5	16.2	1.0	6.0
Vanuatu	...	960	...	55.0	14.0	25.0	...	...
Lesotho	110	370	48.9	54.4	8.5	16.7	7.0	22.0
Afghanistan	80	...	36.0	37.0	11.0	18.5	...	...
Burundi	70	250	44.6	48.9	2.2	8.2	2.0	4.0
Tanzania	100	280	44.9	51.9	6.9	22.2	3.0	3.0
Group II	**97**	**382**	**42.1**	**48.2**	**8.2**	**17.0**	**3.4**	**7.8**
Benin	110	300	43.8	50.4	16.0	35.2	5.0	20.0
Guinea Bissau	160	160	35.4	39.4	18.1	27.1	8.0	11.0
Mauritania	180	440	42.4	47.6	13.9	34.6	2.0	16.0
Comoros	140	370	47.0	56.0	11.3	25.2	...	...
Somalia	70	270	40.0	47.0	23.1	34.1	...	17.0
Maldives	100	290	47.0	53.0	14.0	28.0	...	...
Nepal	80	160	41.4	47.8	3.9	7.7	10.0	25.0
Burkina Faso	60	200	43.0	47.4	5.7	7.9	...	5.0
Mali	70	210	40.2	47.2	14.3	18.0	5.0	6.1
Bangladesh	100	160	44.9	50.6	7.6	11.9	26.0	18.0
Haiti	90	360	48.9	54.4	19.8	27.2	6.0	18.0
Group III	**105**	**266**	**43.1**	**49.2**	**13.4**	**23.4**	**8.9**	**15.1**
Sudan	130	330	41.8	49.4	16.4	20.6	7.0	19.0
Central African Rep.	100	330	42.1	50.0	30.4	34.2	4.0	13.0
Rwanda	60	300	48.0	48.5	3.2	6.2	2.0	2.0
Sierra Leone	150	300	34.0	41.3	18.1	28.2	8.0	17.0
Guinea	120	320	35.0	38.0	13.8	22.2	...	12.0
Ethiopia	60	130	43.2	47.1	8.6	11.5	4.0	12.0
Chad	80	150	40.0	44.0	11.4	27.0	...	6.0
Mozambique	240	170	40.0	48.1	5.7	19.4	...	7.0
Group IV	**118**	**254**	**40.5**	**45.8**	**13.5**	**21.2**	**5.0**	**11.0**
Others								
Bhutan	...	160	34.0	45.6	3.0	4.0	1.0	4.0
Djibouti	...	...	...	48.0	...	72.0	...	...
Equatorial Guinea	...	...	39.0	45.0	39.0	60.0	16.0	...
Tuvalu	...	...	...	...	...	...	...	...

a/ Or most recent figures available.
b/ Estimates.

Source: World Bank, World Tables, 1987.

TABLE 2. LDCs, INDICATORS OF ECONOMIC IMPORTANCE OF FOOD AND AGRICULTURE

	Agric. labour force as share total labour force	Agric. GDP as share tot. GDP	Agric. exports as share total exports	Food import value as share of total merchandise imports	Imported calorie as share of total DES
	1988	1985	Average 1985-87	Average 1980-85	
			%		
Kiribati	15.4	...	80.7	25.4	...
Cape Verde	45.8	24	83.3	29.0	...
Burma	48.2	45	91.6	9.2	0.7
Samoa	15.2	...	84.4	20.2	...
São Tomé & Princ.	68.0	24	45.7	23.5	...
Gambia	81.9	21	45.6	28.7	32.5
Yemen Dem.	33.6	...	4.2	14.4	67.3
Laos	72.4	...	28.8	19.3	...
Yemen Arab Rep.	63.9	...	64.6	28.2	50.8
Uganda	81.9	73	78.7	7.5	1.6
Botswana	64.6	5	6.5	12.8	66.5
Togo	70.3	33	43.0	17.8	13.4
Group I	**60.3**	**48**	**32.7**	**18.5**	...
Malawi	76.8	38	91.5	5.9	2.7
Niger	88.1	44	20.8	19.0	9.4
Vanuatu	46.0	...	88.7	29.2	...
Lesotho	81.1	22	54.1	19.9	54.0
Afghanistan	56.6	...	41.4	16.6	3.7
Burundi	91.5	62	90.6	15.1	2.3
Tanzania	81.8	45	81.1	10.3	4.9
Group II	**78.2**	**44**	**58.1**	**14.0**	...
Benin	64.1	47	60.0	13.7	7.7
Guinea-Bissau	79.6	52	74.7	28.3	...
Mauritania	65.7	25	53.8	40.3	61.9
Comoros	80.0	46	75.6	36.1	...
Somalia	71.3	37	91.8	42.2	31.3
Maldives	64.9	...	62.6	21.8	...
Nepal	92.0	62	49.2	12.9	3.2
Burkina Faso	84.9	47	83.3	20.4	31.3
Mali	81.8	56	72.2	19.9	14.0
Bangladesh	69.8	45	41.4	22.8	11.7
Haiti	65.7	33	30.6	25.3	20.4
Group III	**74.7**	**46**	**46.9**	**23.2**	...
Sudan	62.4	29	96.5	18.7	11.2
Central African Rep.	64.7	41	50.7	19.5	3.3
Rwanda	91.6	40	90.5	11.4	2.8
Sierra Leone	63.7	28	40.1	27.8	14.1
Guinea	75.6	46	4.9	15.7	13.8
Ethiopia	75.7	45	84.9	13.8	7.0
Chad	76.4	46	70.7	13.5	6.1
Mozambique	82.2	50	94.1	19.1	17.8
Group IV	**75.7**	**38**	**59.7**	**17.2**	...
Others					
Bhutan	91.3	...	...	...	...
Djibouti	78.1	5	29.6	19.6	...
Eq. Guinea	58.6	39	83.5	23.4	...
Tuvalu	15.9	...	14.3	20.6	...
Total LDCs	**72.2**	**44**	**47.5**	**23.0**	...

Source: FAO.

Similar wide variations exist on the agricultural import side. In general LDCs are food deficit countries, highly dependent on food imports, the levels of which, however, vary considerably between countries and years. Food imports are generally significant for the LDCs, both in terms of their financial cost--as measured by the ratio of food imports/total import values--and as contributors to total food supply--measured as the ratio of imported calories/total calorie supply.

II. FOOD AND AGRICULTURAL PERFORMANCE IN THE 1980S

The above overview underlines the difficult conceptual and statistical problems that beset a comparative assessment of LDC agricultural performance. Although agriculture predominates in these economies, it does so to very varying degrees. Hence the analytical relevance of the various standard indicators of performance (such as changes in agricultural GDP, production, imports and exports) may widely differ among countries, particularly if they are compared over an identical time period.

Bearing these reservations in mind, an attempt is made to assess LDC food and agricultural performance at the country level, using as an analytical framework levels and changes in per caput food intake as measured by dietary energy supply (DES). Being the net result of changes in food production, net food imports, food and feed uses and food stocks, DES broadly reveals not only the efficiency of a country's food system in relation to its population, but its capacity to make up for domestic supply deficiencies through commercial imports or food aid. DES also permits to estimate malnutrition, given specific assumptions of energy requirements and food supply distribution in different countries.

On this basis, four groups of countries can be identified: those with relatively high, and increasing (during 1979-81 and 1984-86) levels of DES (Group I); relatively high, but stagnating or declining, levels of DES (Group II); low, but increasing DES (Group III); low and declining DES (Group IV). Relatively 'high' and 'low' DES levels were defined using as a demarcation the median value of the LDCs (broadly 2 200 kcal/caput/day) (**Table 3**).

Four countries (Bhutan, Djibouti, Equatorial Guinea and Tuvalu) were excluded from these groups because of a lack of DES data.

The analytical power of DES is supported by the correlation found between levels and changes in DES and the main indicators of economic and social welfare. As shown in Table 1, the highest levels of per caput GDP tend to be found in countries in groups I and II ; and the same conclusion broadly applies to social indicators. A similar correlation is found, as would be expected, between DES and agricultural production performance.

While no consistent relation was found between the four groups and other factors of performance examined, groups I and IV did present fairly consistent 'relatively successful' and 'unsuccessful' profiles, which justifies their more particular focus in this report.

TABLE 3. DISTRIBUTION OF LDCs ACCORDING TO DES LEVELS IN 1984-86 AND CHANGE FROM 1979-81 TO 1984-86

	Kcal/caput day	Change %
Group I. Relatively high (2 201 and above) and increasing		
Kiribati	2 963	1.0
Cape Verde	2 729	6.9
Burma	2 591	11.1
Samoa	2 462	2.5
Sao Tome and Principe	2 386	5.5
Gambia	2 364	8.7
Yemen Dem.	2 331	5.1
Laos	2 307	0.8
Yemen Arab Rep.	2 274	3.3
Uganda	2 240	4.0
Botswana	2 230	3.9
Togo	2 224	2.3
Group II. Relatively high but declining		
Malawi	2 373	-2.0
Niger	2 347	-1.0
Vanuatu	2 344	-3.0
Lesotho	2 296	-2.1
Afghanistan	2 290	-0.4
Burundi	2 268	-3.2
Tanzania	2 214	-2.9
Group III. Low (less than 2 200) but increasing		
Benin	2 188	4.3
Guinea Bissau	2 130	9.7
Mauritania	2 122	7.5
Comoros	2 110	1.9
Somalia	2 088	0.4
Maldives	2 081	6.5
Nepal	2 050	2.5
Burkina Faso	2 047	0.7
Mali	2 020	18.7
Bangladesh	1 922	3.9
Haiti	1 902	7.8
Group IV. Low and declining		
Sudan	2 073	-12.8
Central African Rep.	1 940	-8.4
Rwanda	1 881	-8.5
Sierra Leone	1 868	-8.9
Guinea	1 782	-2.8
Ethiopia	1 661	-7.4
Chad	1 658	-9.1
Mozambique	1 608	-10.8
Others		
Bhutan	...	...
Djibouti	...	...
Equatorial Guinea	...	...
Tuvalu	...	...
Total LDCs	**2 160**	**1.0**

Source: FAO.

1. Food Supply and Malnutrition

The food supply situation in LDCs presents a disquieting picture. Predominantly agricultural-based, the economies of many of these countries are nevertheless facing increasing difficulties in supporting their populations' food needs. The average per caput DES of the LDCs in the early 1980s--2 145 kcals/day in 1979-81--was already significantly (9%) below the average for developing countries as a whole. By 1984/86 average DES in LDCs were estimated to have increased only 1% from the 1979/81 levels, approximately half the average growth rate of developing countries as a whole. Such a widening in the gap between LDCs and other countries appears considerable, given the very short period reviewed.

As expected from this heterogeneous group of countries, wide variations were observed in per caput calorie intake levels, however. In 1984/86, these ranged from a high 2 700-2 900 per day in Kiribati and Cape Verde to a low 1 600-1 700 in Mozambique, Chad and Ethiopia. With the exception of only a few countries, however, DES in the LDCs fell below their respective regions. Thus, average DES of African LDCs (2 108 kcal/caput/day) was 7% lower than the average for Africa as a whole in the mid 1980s. Among the most populous African LDCs, the national/regional gap was as wide as 21% for Ethiopia and 20% for Mozambique. Although regional comparisons are less meaningful for the relatively small number of non-African LDCs, those in Asia and the Pacific--overridden in weight by Bangladesh--were also low by regional standards. For instance, per caput DES in 1984/86 in Bangladesh represented only 84% of the average for all Far East developing countries; in Nepal the ratio was 90%.

As regards recent trends in individual countries, only a little more than a half of LDCs (23 out of 38) increased per caput DES levels at all during 1979/81 and 1984/86 (**Table 3**). These comprised most countries in Asia and the Pacific and the Near East. For some of them (Nepal, Comoros, Samoa, Kiribati) the gain was marginal. Others, however, such as Laos and Burma, achieved large improvements in DES, consolidating an already relatively favourable food supply situation.

The situation was far more disquieting in Africa where nearly all LDCs with declining DES were concentrated. Some of the countries already worst affected by nutritional inadequacy--such as Chad, Sudan, Mozambique, Ethiopia--were those where DES fell the most, exacerbating already untenable situations.

Trends and patterns in DES allow the incidence of undernourishment in the different countries to be estimated.3/ It is observed: (i) the considerable increase in the absolute number of undernourished people in the LDCs between 1979-81 and 1983-85 of approximately 16 million people of which 12.6 million in Africa ((**Table 4**); (ii) this increase in numbers also implied an increase, from 36% to 37% in the proportion of undernourished people in relation to the total population of LDCs during the same period; and (iii) it also implied a widening nutritional gap between LDCs and other developing countries in the respective regions. Indeed, although the early

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3/ Undernourishment is estimated on the basis of caloric consumption levels below 1.4 the basic metabolic rate (BMR). Estimates exclude Bhutan, Cape Verde, Comoros, Djibouti, Kiribati, Maldives, Samoa, Tuvalu and Vanuatu for which data are not available.

TABLE 4. LDCs, UNDERNOURISHED POPULATION, 1979-81 AND 1983-85

REGION	TOTAL POPULATION		NUMBER OF UNDERNOURISHED		PROPORTION OF UNDERNOURISHED	
	1979-81	1983-85	1979-81	1983-85	1979-81	1983-85
	..... Thousand				..... %	
All LDCs	335 852	372 277	119 935	136 327	35.7	36.6
LDCs Africa	147 158	164 672	55 253	67 856	37.6	41.2
LDCs Near East	42 579	46 125	10 460	13 741	24.6	29.8
LDCs Far East	140 305	155 059	51 132	51 360	36.4	33.1

Source: FAO.

1980s were a particularly difficult period for many countries, the developing market economies as a whole had reduced the proportion of undernourished people from 22% to 21% of the total population during 1979-81/ 1983-85. Among developing regions only Sub-Saharan Africa and to a lesser extent the Near East, had experienced a worsening in the proportion of undernourished population. By contrast, LDCs in all regions except the Far East suffered a severe deterioration in their nutritional status.

Although the sharpest deterioration was recorded in LDCs in the Near East, the proportion of undernourished people in this region remained considerably lower than that in LDCs in Africa and the Far East. In Africa, the increase in the relative number of undernourished in LDCs occurred broadly in line with that in the region as a whole. However, such deterioration took place, in the case of LDCs, from an already far more adverse initial situation. While in Africa as a whole the proportion of undernourished people rose from 29% to 33% during 1979-81 and 1983-85, that in African LDCs rose from 38% to more than 41%. As discussed below, crop shortfalls or other destabilizing events can all too easily turn such chronic widespread and worsening undernutrition into an acute crisis of actual famine and starvation.

2. Agricultural Production

Agricultural GDP

The 1980s were a particularly adverse period for LDCs' economies. Overall, their per caput GDP declined almost 2% annually during 1981-85, with some countries, including Sierra Leone, Sao Tomé and Principe, Chad and Mozambique experiencing yearly declines of 6 to nearly 14% 4/ (**Table 5**). Of all 42 countries for which data are available, only 15, nine of which in Group I, achieved yearly gains of 1% or more in per caput GDP. The three countries with the highest levels of per caput GDP (Botswana, Gambia and Cape Verde) also were among those that achieved fastest growth.

As most LDCs economies are agricultural-based, overall and agricultural GDP followed similar patterns. In most cases, however, agricultural GDP rose significantly faster than total GDP (1.5% yearly in per caput terms during 1980-85 for the group as a whole). This feature confirms the inherent resilience of agriculture to adverse economic conditions in relation to other sectors, empirically observed in many instances during the economic crisis of the early 1980s. The feature was common to all four groups.

In most cases the agricultural sector helped to cushion precipitous GDP falls, rather than to generate positive economic growth. Those countries which achieved significant economic expansion--Botswana, Maldives, Cape Verde, Equatorial Guinea--are among the least agricultural-dependent. On the other hand, among countries where agriculture accounts for a major share of GDP (40% or above) all but a few

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4/ These, and all average rates of change reported in this document, are the simple arithmetic average of yearly changes.

TABLE 5. LDCs, TOTAL AND AGRICULTURAL GDP PER CAPUT AND AGRICULTURAL GDP PER CAPUT AGRICULTURAL LABOUR FORCE, AVERAGE YEARLY CHANGES 1981- 85

	GDP per caput	Agricultural GDP per caput	Agricultural GDP per caput agricultural labour force
	..... %		
Kiribati	0.4	-2.1a/	...
Cape Verde	5.5	12.4	10.9
Burma	4.2	5.6	4.8
Samoa	1.3	-2.1a/	0.7a/
São Tomé & Princ.	-7.1	-15.6	-16.2
Gambia	2.4	2.6	1.7
Yemen Dem.	3.1	1.8a/	1.7a/
Laos	3.5	2.6a/	8.3a/
Yemen Arab Rep.	3.8	-5.8a/	-7.7a/
Uganda	2.0	5.5	3.3
Botswana	8.4	-6.8	-8.9
Togo	-4.2	-0.4	-2.2
Group I	**3.4**	**5.0**	**3.6**
Malawi	0.4	4.0	2.3
Niger	-4.7	-1.8	-3.6
Vanuatu	2.6	1.3a/	-3.8a/
Lesotho	-2.4	...	-1.3
Afghanistan	6.5	11.6a/	19.44a/
Burundi	-0.6	2.6	0.7
Tanzania	-2.6	1.1	-1.2
Group II	**-1.9**	**0.6**	**-1.3**
Benin	-2.0	0.4	-0.3
Guinea Bissau	-0.2	1.6	0.9
Mauritania	-2.6	1.3	-0.6
Comoros	0.2	2.0	0.1
Somalia	0.2	6.5	5.1
Maldives	9.1	5.2a/	2.7a/
Nepal	0.9	3.3	1.1
Burkina Faso	-0.8	3.4	1.7
Mali	-3.5	-2.8	-4.6
Bangladesh	0.6	2.8	0.8
Haiti	-3.0	-1.1	-2.1
Group III	**-0.1**	**2.2**	**0.3**
Sudan	-3.1	-1.7	-2.9
Central African Rep.	...	3.0	3.0
Rwanda	-0.9	...	-2.6
Sierra Leone	-13.8	-13.8	-13.9
Guinea	-0.6	1.5	0.6
Ethiopia	-1.2	-1.2	-2.3
Chad	-6.4	-1.6	-2.5
Mozambique	-6.0	-0.7	-2.4
Group IV	**-3.4**	**-1.4**	**-2.7**
Others			
Bhutan	4.1	3.6a/	1.8a/
Djibouti	-0.5	8.2a/	5.4a/
Equatorial Guinea	11.6	-17.4a/	-16.6a/
Tuvalu	5.0	1.4a/	5.1a/
Total LDCs	**-1.6**	**1.5**	**-4.6a/**

a/ Average yearly change 1981-83.
Source: FAO.

(including Burma, Bangladesh, Uganda and Nepal) experienced a stagnation or decline in per caput GDP.

Lower population growth but higher relative increases (or slower declines) in production in agriculture compared with other sectors, would generally imply a relative improvement in labour productivity, and higher relative incomes (or lower rates of pauperization) in agriculture. In the absence of more detailed data, however, the actual importance of these trends is difficult to appraise. A major, but unexplored issue is the distributional change that may have accompanied changes in average incomes in the various economic sectors. Also, in the absence of adequate data on agricultural employment, the numbers of the economically active in agriculture only provides an approximate indicator of per caput performance in the sector. Changes in labour productivity in agriculture should make allowance for rural migration (a common phenomenon to all LDCs, particularly pronounced in Yemen Democratic Republic, Central African Republic, Burma, Sierra Leone and Sudan), which obviously involved unemployed populations in the first place. Finally, many countries did not share in the overall tendency. Out of 39 LDCs for which complete data were available, one-third experienced lower relative growth--or more pronounced declines--in per caput agricultural GDP than in total GDP. Such cases were more concentrated in Group I, several of which (São Tomé and Principe, Samoa and Botswana) were however less impaired, being among the least agriculturally oriented of the LDCs. In contrast, the picture in five out of the eight countries in Group IV was that of their pronouncedly agriculturally-based economies, yet unable to prevent a sharp deterioration in farm incomes.

Food and agricultural production

Total agricultural production for the LDCs as a whole rose approximately 1.7% annually during 1981-88, food production increasing marginally faster than non-food. At current rates of population growth, such slow increases in food and agricultural production imply a decline in per caput terms of the order of 1% annually (**Table 6**). Within such a generally negative trend, agricultural production showed wide fluctuations. In only two years--1981 and more markedly 1985--did the growth in total agricultural production exceed that of population. 1982-84 were increasingly disastrous crop years, as were again the years 1986-88. While the reasons for such shortfalls were multifold, major contributing factors were the unusually severe climatic conditions that affected many LDCs, particularly in Africa, during those periods. Poor production performances affected food and non-food, domestically consumed and export crops alike. Among the few exceptions were sugar crops which showed an overall average gain in per caput terms during 1981-88; cotton, which benefitted from exceptionally favourable growing conditions during 1982-85; and coffee, which recorded an overall slight per caput yearly increase despite severe setbacks, particularly in 1984.

Country performances in agricultural and food production are summarized in **Table 7.** The main features emerging during 1981-88 are:

TABLE 6. LDCs, YEARLY CHANGES IN PER CAPUT AGRICULTURAL PRODUCTION, TOTAL AND MAIN PRODUCT AND COMMODITY GROUPS, 1981-88 AND AVERAGE 1981-88

	1981	1982	1983	1984	1985	1986	1987	1988	Average 1981-88
	..... %								
Agriculture	0.7	-0.7	-1.3	-3.8	2.5	-0.8	-3.8	-0.8	-1.0
Crops	0.7	-0.7	-1.4	-4.5	4.3	-1.4	-4.7	-1.5	-1.1
Livestock	1.0	-	-0.7	-1.6	0.5	-0.9	-0.8	0.7	-0.2
Food	1.1	-1.0	-1.8	-3.5	1.9	-0.5	-3.8	-0.7	-1.0
Cereals	0.8	-1.8	-2.2	-5.4	6.4	-1.0	-6.7	-0.8	-1.3
Roots and tubers	3.7	-3.0	-1.5	-3.3	1.2	-4.9	-4.2	-3.4	-1.9
Sugar crops, primary	6.5	3.5	4.0	-3.6	0.1	-4.9	-	0.6	0.8
Pulses, total	0.2	5.7	-3.9	-3.9	5.2	-2.5	-8.2	0.1	-0.9
Oilcrops, primary	3.8	-4.2	-5.3	-1.8	0.4	3.9	-3.0	-3.6	-1.2
Cocoa beans	-8.8	-7.5	15.3	-16.9	12.0	-6.8	-5.3	-4.3	-2.8
Non-food	-4.4	3.6	5.9	-7.6	9.6	-5.1	-3.0	-2.0	-0.4
Fibre crops, primary	-9.7	6.8	10.6	1.0	12.3	-4.8	-6.5	-7.8	0.2
Cotton lint	-10.2	17.8	14.8	5.2	0.6	-0.1	5.5	-8.4	3.1
Jute	-8.1	-6.4	6.5	-6.4	41.5	-12.5	-30.0	-6.7	-2.8
Natural rubber	-0.5	-0.3	4.3	-10.8	-3.8	-5.6	-3.0	3.7	-2.0
Coffee, green	-1.1	1.7	4.5	-23.8	14.5	-3.4	3.0	5.9	0.2
Tea	0.9	5.6	-12.6	4.6	2.7	-12.7	-3.6	-2.2	-2.2

Source: FAO.

TABLE 7. LDCs, YEARLY CHANGES IN FOOD AND AGRICULTURAL PRODUCTION, AVERAGE 1981-88

	Food	Agricultural production
	..... %	
Kiribati	...	...
Cape Verde	3.5	3.2
Burma	2.5	5.1
Samoa	-1.0	-0.7
Sao Tomé & Princ.	-1.6	-1.4
Gambia	7.1	6.8
Yemen Dem.	1.4	1.4
Laos	4.7	5.0
Yemen Arab Rep.	4.5	1.3
Uganda	3.2	2.1
Botswana	2.1	1.5
Togo	2.0	1.7
Group I	**2.8**	**2.6**
Malawi	1.2	1.6
Niger	-0.8	-0.1
Vanuatu	2.2	2.0
Lesotho	1.6	1.5
Afghanistan	0.3	0.3
Burundi	3.1	3.8
Tanzania	1.6	0.7
Group II	**1.0**	**1.1**
Benin	4.1	5.2
Guinea Bissau	5.2	7.1
Mauritania	0.3	1.5
Comoros	2.2	2.3
Somalia	3.1	3.6
Maldives	3.2	3.4
Nepal	2.5	2.6
Burkina Faso	5.9	5.3
Mali	2.1	2.4
Bangladesh	1.0	1.1
Haiti	1.7	1.3
Group III	**1.7**	**1.8**
Sudan	2.0	2.2
Central African Rep.	0.3	-0.1
Rwanda	0.1	1.0
Sierra Leone	1.2	1.6
Guinea	0.7	0.8
Ethiopia	2.2	1.7
Chad	0.7	2.2
Mozambique	-0.9	-0.1
Group IV	**1.3**	**1.3**
Others		
Bhutan	5.1	5.1
Djibouti	...	...
Eq. Guinea	...	...
Tuvalu	...	...
Total LDCs	**1.7**	**1.7**

Source: FAO.

- Relatively favourable performances in Group I--the only group recording a positive change in per caput food and agricultural production--and Group III. It may be recalled that these were the two groups that achieved gains in DES, albeit from different base levels.

- Particularly low rates of growth in production in Groups II and IV; in the latter, production growth virtually stagnated in two countries, actually became negative in two others, but kept pace with population growth in none.

- Wide inter-country variations. Benin, Bhutan, Burma, Burkina Faso, Gambia, Guinea Bissau and Laos achieved agricultural production increases of 5-7% annually, a remarkable performance in the context of the 1980s, even by non-LDC standards. At the other extreme total food and agricultural production fell in Samoa, São Tomé and Principe, Niger, Central African Republic and Mozambique, implying large declines in per caput food supply. In Bangladesh and Ethiopia--which alone account for almost 40% of the aggregate population of LDCs--per caput food production fell by a cumulative 14% and 2.4% respectively, during 1981-88. Similar situations affected other populous countries such as Sudan, where the cumulative decline in per caput food production was 8%, and Mozambique, where it was almost 30%.

Factors associated to crop performance

LDC crop production growth, which averaged 1.5% a year during 1980-87, can be decomposed into three components: growth arising from an increase in crop area, in average yields or in the mix of crops grown with varying values. (**Table 8**). The effect of changes in cultivated area on crop production reflects the greater use of traditional inputs. The yield effect reflects, in contrast, more use of non-traditional inputs such as fertilizers and improved seeds, implying improved technology. The crop mix effect reflects changes in the relative prices of crops as well as technology. Overall, the respective contributions of these various components were one-third and two-thirds respectively, with changes in the cropping pattern making a very small contribution. The situation between the four groups of LDCs varied widely. Those groups with the higher growth rate in crop production (groups I and III), the largest contribution was from increased yields and less from area while the crop mix effect was virtually zero or negative. In contrast, those groups where crop growth was either lower (groups II) or negative (group IV), the yield effect was either negative or relatively small, while the crop mix effect was relatively large. One group (II) expanded crop area strongly with Burundi being a typical case of moderate crop growth being achieved mainly from increased use of traditional inputs such as land and labour. In several countries of group IV, including Central African Republic and Mozambique, affected by adverse security situations, the area effect was strongly negative.

TABLE 8. LDCs, CROP PRODUCTION GROWTH AND ASSOCIATED FACTORS, 1980-87

Group	Crop production growth rate 1980-87 % per year	Contribution to increase in production from: Area	Yield	Crop mix
		..... %		
I	2.7	29.1	88.7	-17.9
II	1.1	109.3	-39.4	30.1
III	2.2	48.7	50.9	0.4
IV	-0.7	-187.4	20.2	67.2
Total LDCs	1.5	34.4	63.1	2.6

Note: The contribution of the area, yield and crop mix effects sum to 100 although there may be rounding errors.

The more successful countries in terms of increased crop production were those whose fertilizer use was rising fastest during 1980-87 although they were not necessarily using fertilizers at a high rate compared to their respective regional averages, pointing to still much scope for increasing fertilizer use to raise crop yields. Conversely, declining fertilizer use in terms of kg of nutrients per cultivated area, was associated with declining crop production, indicating constraints on imports arising from balance of payments difficulties. In two cases, crop production declined despite a relatively small reported increase in fertilizer use.

An increased area of irrigated land with total cropped area also could be a factor explaining increased production. Indeed, in some LDCs such as Somalia, Mauritania and Nepal this was the case. In others, a reported large increase in the share of irrigated of total land area was explained by the initial very small size of irrigated areas.

Destabilizing events and emergency situations

While many LDCs have been traditionally subject to man-made and natural disruptive events affecting the course of their agricultural and economic development, the frequency and gravity of such events was accentuated in many of them during the 1980s. Thus, armed conflict and/or civil disturbancies, causing grave disruptions in food production and distribution systems and giving rise in some cases to massive displacements of populations, have affected Sudan, Ethiopia, Afghanistan, Mozambique, Somalia, Burundi, Chad and Laos. Natural disasters included periods of drought and flood in large areas of Africa in different periods, more markedly in 1982-84 and 1987. Among recent events, floods have caused grave damage to crops, property and infrastructure in Bangladesh and Sudan, and locust infestations have reached alarming proportions across wide areas of Africa, including Ethiopia, Sudan and the Sahel.

The overall impact of those events on food and agricultural performance is difficult to quantify. Natural and man-made disasters often

have devastating localized or delayed effects that aggregate food production figures fail to reflect. Such situations have in any event required frequent and exceptional measures of external assistance.

Since 1980, FAO has reported cases of food shortages requiring exceptional and/or emergency food aid assistance in all LDCs except Burma, Samoa, Vanuatu and Maldives. In some cases such situations have been limited in time (e.g. Burundi in 1984/85, São Tomé and Principe 1983/84), periodically recurrent in others (Laos in 1980, 1983/85, 1988), exceptional in some (Malawi, parts of 1989 and 1988). In other countries, however, situations requiring such assistance were the rule, rather than the exception. Such were the cases of Ethiopia, Chad and Mozambique, which were continuously reporting grave food shortage situations; and Sudan, in which such situations were reported in all years except 1982/83.

3. Agricultural Trade

Total merchandise and agricultural trade balances

Most LDCs are chronically trade deficit countries. Only a few, including Botswana, Mauritania, Guinea and Chad showed substantial overall positive trade balances during the 1980s. The most frequent situation was that of merchandise trade deficits representing as much as 10-30% of total GDP, extreme cases being those of Lesotho, Cape Verde and Djibouti (**Table 9**).

As the economies of most LDCs are agriculturally-based, it would be expected that the agricultural sector would make a positive contribution to the overall trade balance. For the LDCs as a group, the agricultural trade balance was indeed positive, if only by a small margin representing 0.1% of GDP. At the individual country level such was not the typical case, however. Agricultural trade balances were actually negative in a majority of countries (18 out of 32 for which data are available), further accentuating current account difficulties. Even countries as heavily dependent on agriculture for export earnings as Somalia, Ethiopia and Uganda were unable to maintain a positive trade balance in the sector. Furthermore, the overall tendency was for these balances to deteriorate. As reviewed in the following sections both agricultural exports and imports declined in value during 1981-87, but the decline in exports was the more pronounced.

Agricultural exports

The value of agricultural (crop and livestock, fishery and forestry) exports by LDCs fell 1.3% yearly during 1981-87, a sharp reduction in export earnings from crops and livestock more than offsetting gains from the other sub-sectors (see sections of fisheries and forestry). Both depressed export volumes and prices accounted for the decline, although the importance of depressed prices predominated in most cases (**Table 10**). The aggregate decline reflected negative export performances of a minority of countries (15) which however included several of the main exporters among the LDCs (Sudan, Ethiopia, Tanzania, Burma). Among the largest exporters only Bangladesh and Uganda achieved positive growth rates in agricultural exports during 1981-87. On the other hand, several smaller countries for

TABLE 9. LDCs, TRADE BALANCES AS PERCENTAGE OF TOTAL GDP, TOTAL MERCHANDISE AND AGRICULTURAL (CROPS AND LIVESTOCK, FISHERY AND FORESTRY PRODUCTS), AVERAGE 1980-85

	Total Merchandise Trade Balance	Agricultural Trade Balance
	..... %	
Kiribati	...	...
Cape Verde	-82.2	-28.0
Burma	1.1	5.0
Samoa	...	...
São Tomé & Princ.	-19.3	20.5
Gambia	-37.8	-9.8
Yemen Dem.	...	...
Laos	...	...
Yemen Arab Rep.	...	...
Uganda	0.3	10.3
Botswana	23.2	-4.8
Togo	-21.3	-4.0
Group I	**-18.1**	**-2.0**
Malawi	-5.6	19.5
Niger	-2.8	-1.0
Vanuatu	...	...
Lesotho	-128.3	-32.2
Afghanistan	...	...
Burundi	-10.3	10.3
Tanzania	-11.5	4.0
Group II	**-9.7**	**3.3**
Benin	-33.0	-5.8
Guinea Bissau	-32.2	-5.2
Mauritania	3.5	-2.2
Comoros	-22.8	-2.8
Somalia	-13.3	-3.5
Maldives	...	...
Nepal	-8.5	0.8
Burkina Faso	-26.5	-2.8
Mali	-5.6	9.5
Bangladesh	-9.0	-2.0
Haiti	-13.3	-4.2
Group III	**-10.5**	**-2.1**
Sudan	-10.8	2.3
Central African Rep.	11.8	9.0
Rwanda	-13.8	1.6
Sierra Leone	-10.2	-2.6
Guinea	6.0	-2.0
Ethiopia	10.7	-5.2
Chad	5.2	14.5
Mozambique	-11.3	1.4
Group IV	**-8.0**	**2.1**
Others		
Bhutan	...	...
Djibouti	-71.8	-26.5
Equatorial Guinea	-25.0	28.8
Tuvalu	...	...
Total LDCs	**-11.2**	**0.1**

Source: FAO.

TABLE 10. LDCs, AGRICULTURAL EXPORTS, AVERAGE YEARLY CHANGES 1981-87

	Agricultural, fishery and forestry, value	Crops and Livestock value	Crops and Livestock unit value	Crops and Livestock quantity
	..... %			
Kiribati	20.7	56.9	15.9	14.6
Cape Verde	5.3	13.	14.3	8.5
Burma	-3.5	-10.3	-8.4	-1.6
Samoa	-3.2	-4.5	4.4	-2.2
Sao Tomé and Principe	-14.3	-14.4	-	-12.6
Gambia	3.3	5.9	7.1	7.3
Yemen Dem.	0.5	-1.6	62.5	31.6
Laos	9.9	200.7	6.6	220.6
Yemen Arab Rep.	1.9	1.9	2.8	1.7
Uganda	1.1	1.1	-3.6	6.7
Botswana	6.1	6.9	1.6	5.0
Togo	4.3	4.4	-2.3	11.2
Group I	**-2.2**	...	...	...
Malawi	0.7	1.0	4.4	2.4
Niger	1.2	1.0	11.3	-7.1
Vanuatu	-0.1	11.6	8.4	5.9
Lesotho	-2.8	-19.8	17.8	-22.5
Afghanistan	0.1	1.1	2.1	-2.0
Burundi	-7.4	-10.3	-8.4	-1.6
Tanzania	-1.5	0.1	1.8	5.0
Group II	**-1.5**	...	...	...
Benin	30.2	33.9	10.1	14.1
Guinea Bissau	7.4	11.8	6.1	5.7
Mauritania	29.0	-3.9	2.2	-5.9
Comoros	25.9	146.6	108.1	12.9
Somalia	8.1	9.7	9.1	2.7
Maldives	16.1	3.2	2.4	1.0
Nepal	5.5	-0.5	-12.2	13.9
Burkina Faso	-0.1	1.4	7.3	-5.1
Mali	-3.3	-3.7	-2.0	-0.8
Bangladesh	4.4	-1.8	-0.5	3.1
Haiti	-5.6	-5.8	4.9	-5.3
Group III	**3.2**	...	...	...
Sudan	-0.6	-0.3	-1.3	6.3
Central African Republic	-6.2	-5.0	-4.7	-1.2
Rwanda	14.5	15.8	6.0	8.5
Sierra Leone	-0.2	-1.3	5.2	-6.8
Guinea	1.8	1.7	5.6	-4.6
Ethiopia	-1.0	-1.1	-4.3	4.6
Chad	-1.9	-2.0	4.5	-6.0
Mozambique	-8.2	-10.0	-1.5	-9.3
Group IV	**-2.9**	...	...	...
Other				
Bhutan	1.0	1.1	-	1.1
Djibouti	6.3	6.3	-5.2	20.8
Equatorial Guinea	12.2	0.6	0.4	1.7
Tuvalu	70.6	11.8	19.4	-28.9
Total LDCs	**-1.3**	**-2.4**	**-1.8**	**0.1**

Source: FAO.

which agricultural exports are nonetheless a major contributor to total export earnings (such as Kiribati, Burundi, Rwanda, Comoros and Maldives) achieved buoyant growth in agricultural exports. In many cases, however, such overall positive performances concealed wide yearly fluctuations and reflected a few exceptionally favourable years. Indeed, pronounced export instability was a characteristic common to the group. During 1980-87 agricultural exports by LDCs fluctuated 23% around the trend value in value terms; and 19% in volume (simple average of instability index of individual countries). Highest instability indices were observed in island states, in particular Comoros, Tuvalu and Kiribati (in the range of 70-80% in value); Benin, Cape Verde and Lesotho (around 40%); and Somalia, Gambia and Mozambique (20 to 30%).

The generally poor export performances of LDCs were caused by a number of largely interrelated internal and external factors. External short-term factors, reviewed elsewhere, exerted a profound negative influence on agricultural trade of all developing countries during the early 1980s, LDCs being especially exposed, given the structural rigidities of their agricultural export systems. Such structural constraints in particular were the dependence of these countries on a few products, and a few external outlets, for the bulk of their exports.

As regards product concentration, it will be recalled that, for the group as a whole, agricultural exports accounted for nearly half of total exports in recent years. Within agriculture, exports are confined in most cases to one or two major commodities and a variety of other products of minor or short-lived importance (**Table 11**).

The agricultural export base of LDCs is predominantly composed of tropical products. The most important of these, coffee, is among the three main export crops in 11 countries; in some of them including Uganda, Rwanda, Burundi, Ethiopia and Haiti it represents 80-98% of all agricultural exports and is by far the main source of overall export earnings. Cotton is a major export crop in 13 countries, although the dependence on this commodity is comparatively smaller (Sudan, about half of all agricultural exports; Mali and Benin, about 40%). Cocoa beans are crucial export products for six countries among which Benin (45% of its agricultural exports) and Sierra Leone (38%); and sugar for four (including Nepal, 30%; Mozambique 13%). Fish and marine products are major export items for Maldives, Mauritania and Mozambique and so are groundnut products for Gambia and Guinea Bissau. In one country--Bangladesh--jute accounts for a major, if declining share of total agricultural exports. On the whole, the three main agricultural export crops account for 80-95% of all agricultural export earnings in a large majority of countries. In several of them including Burundi, Chad, Comoros, Laos, Mauritania, Rwanda and Uganda the share approaches 100% (see **Annex Table 6**).

The economic risks and uncertainties involved in export concentration need not be recalled. It may be noted, however, in a long-term perspective, that while exports as a whole considerably diversified, no major changes generally occurred in the commodity composition of agricultural exports.5/ A major exception was that of fish and marine

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5/ Agricultural exports accounted for around 70% of total exports in the early 1960s compared to 40-45% in recent years.

TABLE 11. LDCs, SHARE OF MAIN COMMODITIES ON TOTAL AGRICULTURAL EXPORTS, 1986

Item / Share (%)	10-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
Coffee, green			Central Afri. Rep.	Guinea Sierra Leone	Laos Tanzania		Ethiopia Haiti		Burundi Rwanda Uganda
Cattle (includes beef)						Chad Djibouti	Botswana Niger		
Marine products (include fish & shell fish)			Yemen D.	Mozambique Vanuatu			Mauritania		Maldives
Cotton lint			Togo	Burkina Faso Mali	Sudan				
Cocoa beans	W. Samoa			Benin			E. Guinea		
Nuts (include ground & cashew nuts)						Guinea-Bissau		Gambia	
Copra					Kiribati São Tomé P.				Tuvalu
Sheep/goats							Somalia		
Tobacco					Malawi				
Sugar cane			Nepal						
Jute				Bangladesh					
Fruit products		Bhutan		Afghanistan (Raisins-31.1%)			Comoros (Vanilla-74.8%) Yemen A.R. (Pastry-71.3%)		
Forestry products		Burma							
Vegetable products							Cape-Verde		
Hair line			Lesotho						

Source: FAO.

products which, particularly during the past two decades, gained considerable importance in the export sector of Bangladesh, Guinea Bissau, Maldives, Mauritania, Mozambique, Vanuatu and Yemen People's Democratic Republic.

The other dimension of trade concentration refers to the direction of agricultural trade. Industrial countries occupy a major, sometimes monopsonistic, position as outlets for total and agricultural exports of LDCs (**Annex Table 5**). In general, African LDCs heavily rely on the EEC and to a lesser extent the United States' markets. Intra-African or, a fortiori intra-African LDCs agricultural trade are extremely limited, with only a few significant exceptions such as Niger exports of cattle to Nigeria. Intra-regional trade is relatively more intense in Asia and Near East: other than Japan, important outlets for LDCs in those regions are Singapore (especially for Burma and Yemen Arab Republic); and Thailand (for Lao, Maldives, Sudan). Bhutan and to a lesser extent Nepal strongly depend on Indian markets for their total and agricultural exports.

Export earnings and terms of trade

What was the economic impact of changes during the 1980s in agricultural exports? The complex effects of such changes on domestic sectoral and overall income are beyond the scope of this report. To the extent that exports are meant to finance imports, however, an attempt is being made at reviewing trends in the terms of trade and purchasing power of agricultural exports; and, on those basis, assessing the gains or losses, in actual US dollar terms, in individual countries.

Agricultural net barter terms of trade (agricultural export prices of the individual countries deflated by the index of the export unit values of manufactured goods and crude petroleum) showed wide year-to-year variations, but a generally declining trend. During the crisis years 1981-83 and, even more markedly, the commodity slump of 1987, agricultural terms of trade drastically deteriorated (**Table 12**). Stronger agricultural commodity prices brought about a significant recovery in terms of trading during a period centred on 1984. Yet by 1987, the agricultural terms of trade for the LDCs as a whole were over 20% lower than in 1980. The deterioration was especially pronounced in countries of groups I and IV.

The picture was substantially different with regard to income terms of trade which take into account changes in both prices and volumes of agricultural exports, and thus more accurately indicate changes in the latter's purchasing capacity. In Group I countries, lower relative export prices were compensated by larger volumes of agricultural exports, the net result being an overall slight gain in income terms of trade during 1981-87. In contrast, lower volumes of exports in the other groups either nullified gains in relative prices of agricultural exports--case of Groups II and III--or further aggravated losses in such relative prices--Group IV.

Some countries, however, can be credited with remarkable success in overcoming price constraints through their efforts to expand supplies and markets. Thus, Burundi and to a lesser degree, Uganda, strongly expanded the volume of their coffee and tea exports during most of the 1980s, achieving a considerable increase in export earnings from these products.

TABLE 12. LDCs, NET BARTER AND INCOME TERMS OF TRADE OF AGRICULTURAL PRODUCTS AGAINST MANUFACTURED GOODS AND CRUDE PETROLEUM, 1981 TO 1987

	1981	1982	1983	1984	1985	1986	1987	Average 1981/87
	..... 1980 = 100							
NET BARTER								
Country groups								
I	87.6	74.1	80.7	94.1	94.8	86.2	63.1	82.9
II	99.4	104.9	115.2	129.6	102.6	127.0	90.2	109.8
III	98.0	110.5	95.3	113.3	124.4	97.9	88.7	104.0
IV	93.4	87.7	102.2	116.2	94.0	105.9	74.8	96.3
All LDCs	94.6	93.6	99.8	114.5	102.1	105.9	79.0	98.5
INCOME								
Country groups								
I	93.9	99.9	110.0	118.3	111.6	99.8	70.8	100.6
II	106.4	93.0	99.1	123.9	91.1	104.5	82.1	100.0
III	93.5	106.7	90.1	108.0	114.3	88.4	76.7	98.8
IV	88.6	91.5	92.1	102.6	81.2	88.2	69.1	87.6
All LDCs	95.1	96.7	97.1	112.3	96.5	94.7	74.3	95.2

Note: Country details are presented in Annex Tables 7 and 8.

Source: FAO.

Similarly Mali and Togo achieved significant increases in export revenues from cotton despite adverse movements in terms of trade.

Carrying the analysis further, changes in country income terms of trade may be related to the actual value of agricultural exports in the base year 1980, in order to quantify yearly gains and losses in real agricultural export earnings expressed as either positive or negative percentages of the respective countries GDP (**Table 13**). Among the wide diversity of country situations a number of features stand out:

- For LDCs as a whole the net result of yearly gains and losses in agricultural export earnings in relation to 1980 was an overall gain accounting for 0.3% of the aggregate GDP during 1981-87.

- Approximately the same number of countries experienced overall gains and losses. Negative signs were more concentrated in Groups I and IV, the latter being the only one showing an overall loss during 1981-87.

- In many cases changes in agricultural export earnings had a considerable weight in GDP, more so on the positive side. Leaving aside the extreme case of Comoros--partly explained by booming exports of vanilla in 1982-83 and 1985-86 relative to a very poor base year 1980--gains accounted for as much as 4-8% of GDP in Botswana, Burundi, Laos, Rwanda, Equatorial Guinea and Vanuatu. On the negative side, only São Tomé and Principe experienced losses of a comparable magnitude. Losses were nevertheless also considerable (of the order of 1% of GDP) in Central African Republic, Gambia, Haiti, Samoa and Sudan.

- The years 1984 and to a lesser extent 1985 were the best agricultural export years for over half of the LDCs; conversely, 1981-82 were the worst years for one-third of the countries and 1987 for half of them. Such periods, broadly coinciding with cycles of high and low commodity prices, confirm the predominant role of externally-determined market conditions in the success or failure of agricultural trade performances of LDCs.

Food imports

As previously mentioned, LDCs are food-deficit countries, their food imports accounting for a major share of their total food supply. Agricultural imports consist primarily of food products, particularly cereals--wheat, wheat flour and rice (the three products accounting for about 40% of total agricultural, fishery and forestry imports in recent years)--dairy products and vegetable oils (approximately 10% each of them), and meat (3%).

Although the rate of increase in the volume of food imports slowed during the 1980s compared to the 1970s, their price/volume relationship was even more favourable to the importing LDCs. The volume of LDC food imports increased 3.3% annually during 1981-87, approximately half the rate of increase of 1971-80 (**Table 14**). In contrast, their value actually declined 1.2% annually during the 1980s, compared to a 23% average yearly increase

Table 13 : LDCs Gains and Losses from Yearly Changes in Real Agricultural Export Earnings as Percentage of GDP: 1981 - 87

Country	1981	1982	1983	1984	1985	1986	1987	Total 1981 - 87
				%				
Kiribati	1.56	-1.15	-0.54	22.56	3.21	-0.47	-1.09	2.93
Cape Verde	1.15	-0.31	-0.31	-0.24	-0.24	-0.10	-0.28	-0.04
Burma	0.92	-0.30	0.00	-0.33	-0.73	-0.75	-0.79	-0.29
Samoa	-2.78	-2.61	0.45	2.62	-1.20	-2.18	-2.26	-1.03
Sao Tome Principe	-9.97	-9.50	-10.96	-11.16	-10.71	-10.08	-10.44	-8.83
Gambia	-2.75	-2.88	-0.02	2.06	-2.49	-3.12	-2.67	-1.47
Yemen Democratic	-0.48	-0.37	0.34	-0.31	-0.23	-0.36	-0.43	-0.23
Laos	-0.06	4.95	6.64	11.88	14.63	3.32	0.18	5.33
Yemen Arab Republic	-0.13	-0.09	-0.10	-0.12	-0.11	-0.11	-0.07	-0.09
Uganda	-2.32	0.64	1.89	4.81	6.04	3.12	-1.56	1.53
Botswana	7.96	10.10	9.03	5.90	10.00	2.74	0.63	5.77
Togo	-0.84	-1.64	-1.82	1.43	0.80	4.89	0.42	0.31
Group I	0.21	0.44	0.99	1.69	1.71	0.57	-0.66	0.61
Malawi	-0.77	-1.73	0.35	8.63	1.33	-0.65	-1.68	0.76
Niger	0.06	-0.24	-0.95	0.76	-0.60	-0.27	-0.97	-0.27
Vanuatu	4.04	-1.66	8.29	47.61	7.19	-1.98	-1.35	7.74
Lesotho	-0.07	-0.04	1.07	1.28	-0.75	-1.06	-0.46	0.09
Afganistan	0.01	-0.97	0.21	2.74	-0.71	-0.62	-0.79	-0.04
Burndi	1.17	3.56	2.75	6.70	8.00	23.44	0.27	5.91
Tanzania	1.15	-0.25	-0.33	-0.48	-0.97	0.06	-0.98	-0.24
Group II	0.53	-0.29	0.10	2.40	0.03	1.38	-0.87	0.39
Benin	-1.15	-1.12	-1.10	5.99	6.98	1.47	16.99	3.30
Guinea-Bissau	2.50	1.45	0.65	21.36	8.04	4.49	3.33	3.85
Mauritania	0.65	0.37	-0.07	-0.19	0.16	-0.73	-1.26	-0.11
Comoros	41.66	115.81	32.97	0.47	89.47	180.88	8.33	57.47
Somalia	1.75	15.92	-0.97	-1.21	0.02	-1.34	-1.84	1.57
Maldives	0.00	0.01	0.01	0.01	0.02	-0.01	0.00	0.01
Nepal	1.06	1.07	0.18	0.89	1.13	0.27	-0.29	0.53
Burkina Faso	-1.17	-1.61	-1.41	-0.09	-1.21	-1.39	-1.15	-0.99
Mali	0.72	1.47	-0.21	3.24	0.74	-1.38	-2.18	0.27
Bangladesh	-0.10	-0.10	0.05	0.31	0.54	0.03	-0.18	0.07
Haiti	-1.81	-1.81	-1.33	-1.16	-1.10	-1.21	-1.40	-1.23
Group III	0.25	1.54	-0.08	0.57	0.93	0.39	0.02	0.44

Table 13 (cont.)

Country	1981	1982	1983	1984	1985	1986	1987	Total 1981 - 87
					%			
Sudan	-0.63	-0.64	-0.19	1.43	-1.77	-2.27	-2.25	-0.61
Central Africa Rep.	-1.14	-0.68	-0.70	-1.39	1.19	-0.57	-2.23	-0.67
Rwanda	0.83	1.18	0.53	1.16	1.56	16.91	3.79	3.65
Sierra Leone	-0.97	-0.86	-0.78	-0.70	0.37	-0.39	-1.16	-0.59
Guinea	-0.22	-0.14	0.15	-0.27	-0.29	-0.06	-0.24	-0.14
Ethiopia	-0.86	-0.31	-0.04	0.57	-0.54	1.90	-1.52	-0.09
Chad	1.59	1.46	1.97	3.50	2.80	2.58	-3.16	1.22
Mozambique	-0.27	-0.60	-0.72	-0.71	-0.52	-0.58	-0.70	-0.52
Group IV	-0.46	-0.36	-0.18	0.51	-0.43	1.15	-0.98	-0.10
Others								
Bhutan	0.05	0.10	0.12	0.14	0.08	0.04	-0.01	0.07
Djibouti	-0.15	-0.11	0.21	0.38	0.75	0.23	0.39	0.22
Equatorial Guinea	7.26	1.09	7.93	16.93	19.39	7.23	-2.20	7.58
Tuvalu	-0.47	-0.43	-0.28	9.35	n/a	-0.35	-0.32	0.81
Total LDCs	0.07	0.40	0.15	1.10	0.58	0.82	-0.54	0.32

Note: Calculated by multiplying the current value of agricultural exports each year by the index of income terms of trade (1980 = 100) and deducting from the product the current value of agricultural exports. The resulting figure is presented as a share of actual or estimated GDP of the different countries. The total 1981-87 refers to total gains/losses during 1981-87 divided by total GDP produced over the same period.

Sources: FAO, UN Statistical Yearbook, various issues, UN Monthly Bulletin of Statistics, various issues, IMF World Economic Outlook, 1988.

TABLE 14. LDCs, AVERAGE YEARLY CHANGES IN FOOD IMPORTS, QUANTITY AND VALUE, 1981-87

Countries	Quantity	Value
	..... %	
Kiribati	-1.28	-2.80
Cape Verde	0.92	3.18
Burma	-6.05	-9.51
Samoa	-3.26	-1.71
Sao Tomé and Principe	-4.93	-4.22
Gambia	14.95	7.19
Yemen Dem.	1.97	-3.06
Laos	-6.61	-8.88
Yemen Arab Rep.	4.84	-5.79
Uganda	7.21	-2.88
Botswana	6.39	1.52
Togo	10.02	0.94
Group I	**2.84**	**-4.36**
Malawi	-6.13	-11.83
Niger	16.48	-4.63
Vanuatu	4.90	-6.77
Lesotho	-0.11	-0.26
Afghanistan	13.72	-4.46
Burundi	4.99	-2.05
Tanzania	-4.09	-8.32
Group II	**0.26**	**-3.52**
Benin	4.60	6.44
Guinea-Bissau	15.86	10.90
Mauritania	7.36	4.06
Comoros	15.36	4.49
Somalia	11.20	1.30
Maldives	3.27	-3.52
Nepal	5.61	8.30
Burkina Faso	10.32	0.74
Mali	13.12	9.17
Bangladesh	9.47	7.17
Haiti	2.00	1.55
Group III	**4.05**	**1.83**
Sudan	12.00	-1.29
Central African Rep.	2.90	4.18
Rwanda	6.90	1.61
Sierra Leone	4.90	3.53
Guinea	8.53	3.54
Ethiopia	24.09	28.75
Chad	39.46	40.13
Mozambique	5.73	6.19
Group IV	**7.35**	**2.24**
Others		
Bhutan	15.44	8.36
Djibouti	6.98	-0.87
Eq. Guinea	12.06	-6.79
Tuvalu	-10.93	-12.09
Total LDCs	**3.31**	**-1.23**

Source: FAO.

during 1971-80. Thus, LDCs generally benefitted from lower unit values of food imports and were able to maintain relatively high volumes of imports despite heavy financial constraints.

The assessment of the financial cost of food imports to LDCs presents a number of difficulties. Available trade data, based on national customs records, often do not accurately reflect the large food aid component of LDC total imports. For many countries, volumes of food aid, based on donors' sources, exceed national data on total import volumes including food aid. As an approximation, it is estimated that for low income food deficit countries--many of which are LDCs--food aid shipments in cereals account for about 20% of their total cereal imports. While this limitation imposes a degree of caution, an attempt can be made at assessing the importance of food imports, as officially reported, in relation to total merchandise trade and the extent to which such imports contribute to alleviate situations of shortage and to meet nutritional needs.

In a long term perspective, changes in the volume of food imports in a given year showed a close correspondence with changes in food production in the preceding crop season. For instance, the grave production shortfalls of 1972 had been followed by strong increases in the volume of imports, despite the financial burden imposed by their commercial component in that period of high international prices; and the same occurred following the shortfalls of 1982-84. This would support the expectation that, by and large, basic needs prevail over financial constraints in determining import decisions.

Changes in the ratio food import value/total merchandise import value provide a further insight. While the ratio is already high by developing country standards (about 23% in recent years compared to 17-18% in Sub-Saharan non-LDCs) it tends to increase considerably during periods of acute domestic shortage and/or high food import prices. Such high priority to food, in relation to other consumption and developmental imports, indicates the compelling nature the food supply problem may assume during years of domestic shortfall.

The financial cost of food imports--as broadly indicated by the ratio food imports/total merchandise imports--may also be considered in relation to the contribution of food imports to total calorie supply, two main indicators of food import dependency (**Table 2**). While individual country situations were sharply contrasting in a number of countries the financial cost of food imports appeared to be disproportionate to their beneficial impact on food consumption and hence nutrition. For instance in Nepal, Central African Republic, Burundi and Afghanistan, food imports only accounted for 2-3% of the total calorie supply but for approximately 15-16% of the total value of merchandise imports. Similar asymmetric cases were those of Ethiopia, where the respective 'financial' and 'calorie supply' shares were 14% against 7%; Rwanda 11% to 3%; and Sierra Leone, 28% to 14%.

4. Fisheries

The following review of the fishery production and trade performance of LDCs during the 1980s uses a country grouping that has more analytical pertinence to the fishery sub-sector than that adopted elsewhere in this report. By order of their importance in terms of total fish catch these country groups are: Asian (Afghanistan, Bangladesh, Bhutan, Burma, Laos, Yemen Arab Rep. and Yemen Dem. Rep); African land-locked (Botswana, Burkina Faso, Burundi, Central Afr. Rep., Chad, Lesotho, Malawi, Mali, Niger, Rwanda and Uganda); East African coastal (Djibouti, Ethiopia, Mozambique, Somalia, Sudan and Tanzania); West African Coastal (Benin, Equatorial Guinea, Gambia, Guinea, Guinea Bissau, Mauritania, Sierra Leone and Togo); and Island States (Cape Verde, Comoros, Kiribati, Maldives, Samoa, São Tomé & Príncipe, Tuvalu and Vanuatu).

The aggregate annual fish catch of LDCs steadily increased during 1980-87, from a little under 2.4 million tons in 1980-82 to 2.9 million tons in 1987 (**Table 15**). Increases occurred in both inland and marine fisheries, but as the marine catch expanded at a faster rate, its share of the total LDCs fish catch rose from 39% in the early 1980s to 43% in 1987.

The fish catch in Asian LDCs is composed of inland and marine species in approximately equal shares although the inland catch in Asia includes a very notable acquaculture component. There is also a significant unrecorded catch of inland fish in this region from informal or subsistence harvests of wild fish from paddies. The marine industry has been considerably more dynamic, however, with its catches growing about one-quarter between the early 1980s and 1987, while the total inland catch stagnated in 1985-86 and slightly declined in 1987. The three landlocked Asian countries--Afghanistan, Bhutan and Laos--have recorded almost constant levels of fish catch throughout the 1980s.

Fishery trade in the Asian LDCs has been characterized by a large and growing net surplus, the value of total exports having more than doubled between 1980-82 and recent years, while that of imports halved. (**Table 16**). The only exception was Yemen Arab Republic which consistently has had a deficit in fish trade.

Fisheries play a critical nutritional and economic role in most Asian LDCs. The population of both coastal and island LDCs are fish eaters by tradition. In combination with the traditional staple crops of the region (rice, wheat, maize), the inclusion of fish in the diet considerably helps to ensure adequate protein intake. The region has a potential for expanded fishery production. In particular, countries such as Bangladesh, Burma and Laos possess extensive inland and brackishwater areas on which fisheries and aquaculture can be further developed. Higher production from these resources and improving methods used in handling and distributing fish would generate significant social, economic and nutritional benefits for the populations.

In Bangladesh, for example, threequarters of the total fish catch arises from traditional small-scale inland capture and culture fisheries. The potential resources for increasing production of inland fisheries include over 1.2 million hectares of open waters and about 0.15 million hectares of impounded inland waters (ponds and oxbow lakes). In addition

TABLE 15. LDCs, FISH CATCH AVERAGE 1980–82 AND 1985, 1986 AND 1987

		1980–82	1985	1986	1987
		..... '000 metric tons			
Asia	Inland	680	733	733	729
	Marine	634	756	774	801
	Total	1 314	1 489	1 507	1 530
East Africa Coastal	Inland	230	291	366	369
	Marine	81	94	97	103
	Total	311	385	463	472
Land locked African	Inland	487	459	506	518
	Marine	–	–	–	–
	Total	487	459	506	518
W. Africa Coastal	Inland	60	58	58	60
	Marine	126	200	198	201
	Total	186	258	256	261
Island States	Inland	...	...	...	...
	Marine	77	119	115	124
	Total	77	119	115	124
	Total Inland	1 457	1 541	1 663	1 676
	Total Marine	918	1 169	1 184	1 229
	Total Catch	2 375	2 710	2 847	2 905

Source: FAO.

TABLE 16. LDCs: TRADE IN FISHERIES, AVERAGE 1980-82 AND 1985, 1986 AND 1987

	1980-82		1985		1986		1987a/	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
	'000 US$							
ASIAN LDCs	69 065	5 981	117 210	3 845	153 188	3 881	179 918	2 015
WEST AFRICAN COASTAL	34 633	24 017	140 904	23 085	189 154	30 099	182 380	23 830
EAST AFRICAN COASTAL	34 640	7 065	37 867	8 519	36 325	8 628	42 140	7 915
LANDLOCKED AFRICAN	3 687	7 941	1 047	8 690	1 381	10 668	1 385	10 929
ISLAND STATES	19 879	13 520	26 076	9 173	23 378	6 664	20 042	2 965

a/ Provisional.

Source: FAO.

some 2.8 million hectares of paddy fields are flooded from 4-6 months each year, and provide several hundred thousand tons of fish annually for local consumption.

Recent bottom trawl surveys in the Bay of Bengal have indicated a limited exploitable resource of fish and shrimp in the deeper waters of over 100m. However, the rough configuration of the bottom in some areas and the costs of deep water trawling suggest that other types of gear should be considered for exploiting this resource.

As regards LDCs in Africa their total annual fishery catch rose 27%, from rather less than one million tons in 1980-82 to an estimated 1 252 000 tons in 1987. About threequarters of the region's catch by LDCs in 1987 was accounted for by inland fisheries. Among the African sub-regions, the fastest increase was in the East African coastal states (60% for inland and 27% for marine species); the catch in the West African coastal states also rose considerably, although the overall gain was only from their marine fisheries. The lowest relative expansion was in the land-locked States, their catch increasing only 6% between 1980-82 and 1987.

Recent FAO estimates of the potential fishery production of African countries suggest that the fishery resources of LDCs in the region are considerably under-exploited. The total catch of 1 250 million tons in 1987 represents only about 37% of the estimated potential production. The proportion of actual (1987) in relation to potential catch for the different LDC sub-regions in Africa are:

East Africa: marine 20%, inland 56%.
West Africa: marine 14% inland 67%.
Land-locked: 68%.

African LDCs are traditionally net exporters of fish and fishery products, the exceptions being mainly among the landlocked countries, in particular Botswana, Burkina Faso and Lesotho, where the trade balance turned increasingly negative during the 1980s. Exports from West African coastal countries, dominated in size by those from Mauritania, rose over five fold between 1980-82 and 1986-87. Their imports only rose 25% during the same period mainly reflecting growing purchases by Benin, Equatorial Guinea and Togo. East African fishery trade is strongly concentrated in Mozambique, which accounts for over 90% of the sub-region's exports and nearly 80% of its imports. While remaining a major net exporter, this country recorded only a minor increase in fishery shipments during the 1980s.

The Island States face particular development constraints linked to their smallness and remoteness. However, although having the smallest volume of fish catch among LDC groups, these countries recorded the fastest growth during the 1980s, their total production being 60% larger in 1987 than in 1980-82.

The Island States' fishery export trade has also expanded. Their fish exports rose 31% in current US dollar value between 1980-82 and 1985, although they substantially decreased the two following years; while their imports approximately halved in value during 1980-82 and 1985-87, the result being an accentuation in the net export position of these countries. These changes mainly reflected opposing trends in Maldives and Vanuatu, the

main trading countries in the group. While the former vigorously expanded the value of its exports, the latter experienced notable decreases in both its fish exports and imports.

Most LDC Island States have declared exclusive economic zones (EEZs), extending up to 200 nautical miles from their coastlines or to the equidistant lines with neighbours, which cover an area of sea many times larger than their total land area. These ocean areas contain large pelagic resources, among which skipjack tuna is believed to offer substantial scope for expanded catches (for islands in the IndoPacific region) and tunas, bonitos and billfishes and carangids in other island states. In some areas increased catches of demersal fish and spiny lobsters are also reported. Possible constraints to the development of large-scale fishing industries based on the oceanic islands are the limited lagoon and shelf areas and the scarcity of baitfish required for catching skipjack, although payaos (fish aggregating device) represented a potential alternative option. Foreign technical and financial assistance will be required if LDC Island States are to exploit their pelagic and demersal resources on any significant commercial scale.

The Prospects of Fisheries in LDCs

Fisheries play a critical developmental role in LDCs and is a major actual and potential source of animal protein. Moreover, fisheries sustain local incomes and generate domestic employment activities and earn foreign exchange. In many instances, the development of rural fishing communities is closely linked to the performance of this subsector.

Many rural settlements rely heavily on artisanal fisheries to supply basic food to their populations who are by tradition eaters of fish. Fish is also culturally acceptable in areas where there are inhibitions on the use of certain other animal foods. As a source of high quality animal protein, fish is equivalent to meat in nutritional value. In combination with the traditional staple crops such as rice, corn and wheat, fish in the diet can do much to ensure adequate protein intake.

Furthermore, since many if not most of the fish resources in these countries can be profitably exploited on a small-scale and in rural settings by artisanal fishermen and fishfarmers, development of this subsector can directly benefit the poorest segment of the population. As the alleviation of poverty is a central policy goal of the LDCs, many of their governments have given increased attention to artisanal fisheries which typically are small-scale and labour-intensive industries where the benefit directly accrues to the poor. In addition, the export of certain high-valued products such as tuna and shrimp can contribute significantly to improving the balance of payments situation of many coastal states.

Potential role of Official Development Assistance (ODA) in Promoting LDC fisheries

The question of how best to harness and deploy ODA resources to cushion if not transform the inherent disadvantages of most LDCs into opportunities for economic growth remains a continuing issue. The recent favourable economic performance of the fishery sector lends weight for focusing greater attention to its development in these countries.

With the declaration of EEZs and improvement of appropriate capture fishing as well as fish culture technologies, additional aid resources should be channelled to develop and implement action programmes and projects to enhance integrated small-scale fisheries in both coastal and inland aquatic habitats. The same would apply for improving secondary activities such as marketing, post-harvest techniques and credit schemes geared towards sustaining community-based markets.

Integrated as well as comprehensive community-based approaches also should be adopted when the target beneficiaries are low income groups of fishermen and fishfarmers. Development interventions should likewise consider promoting greater support for indigenous practices, processes and systems and introduce appropriate innovations only when the benefits of such would sustain the productivity of the fishery resource and cater to the food and economic needs of small-scale fishermen/fishfarmers, their households and communities. Such approaches may take various project forms: for example, community fishing centres, fisheries development units, integrated coastal zone management schemes, aquaculture development, river basin or lake fisheries development. Even in the fishing of ocean pelagics such as tunas, with traditional techniques of using handlines, payaos coupled with the use of small but stable fishing crafts, could economically benefit a greater number of small-scale fishermen.

It is also important to consider ways of creatively improving rural financial systems by carefully tapping the existing informal system of credit. It will also be required a better understanding on the part of formal institutional credit systems of the specific problems of small-scale fisheries in LDCs, in particular their limited capacity to pledge collateral.

In cases where an obvious opportunity exists for earning foreign exchange such as the export of tunas and shellfish, private sector investments should be carefully considered. Furthermore fisheries is one sector where an important intra-regional trade has already evolved in some situations. For example, Tanzania fish traders operate in Zaire where fish prices are very high; before the drought Botswana used to export up to 800 tons per annum to Zambia; and Mozambique sells shrimp to hotels in Swaziland. Such opportunities for rehabilitating and gradually normalizing inter/intra - regional trade could be usefully explored.

5. Forestry

The forestry sector makes a vital contribution to the economy and well-being of people of the LDCs. The sector is most important in energy supply - fuelwood and wood biomass constitute the source of more than 60% of all energy consumption in nearly all of these countries. The forest cover is lower than average for developing countries as a whole and very low in some. The pressure on remaining forest of fuelwood gathering clearance for agriculture and grazing threaten the ability of the forest to fulfill its role of soil and water conservation. The forest is of direct importance to nutrition of rural people and supplies small-scale industries. In several countries, wood products make a major contribution to export earnings. Practically all these countries, however, are entirely dependent on imports for supplies of paper albeit at very low levels of consumption.

Forests occupy 21% of the total land area of LDCs (**Table 17**). The average for developing countries is 30%. Several of the LDCs have large areas or a high proportion of their area under forest, while a large number, either arid countries or with high population density, have very little forest left. There are one or two countries with very substantial areas of forest and low population density such as the Central African Republic with considerable areas of dense tropical forest and Botswana with open woodland and savannahs. In the more densely populated countries, forest areas may be 2-3 ha per caput but more frequently they are less than 1 ha. The forests in the neighbourhood of dense settlements tend to be the most depleted. The search for fuelwood and the conversion of land to agriculture in these areas lead to increasing distances over which fuelwood must be carried or transported to supply the population.

The area of forest is being diminished at an average rate of 0.6% per annum, but there are a number of countries where the rate of removal or destruction of forest is much higher -- between 2 and 4% per annum--and the ability of the forest to fulfill its roles of wood supply and environmental protection is under severe threat. Some of these are arid countries such as Benin, Burkina Faso, Guinea Bissau, Niger where the destruction of forest increases the risk of desertification. In others such as Nepal, the forest is vital to soil and water conservation. In all, the destruction of trees and forest places the future supply of fuelwood at risk.

TABLE 17. LDCs, FOREST RESOURCES

	Forest Area	Share of Total Land Area	Annual Deforestation	Deforestation Rate per Annum
	million ha	%	million ha	%
AFRICA	223.8	21.1	1.14	0.5
ASIA FAR EAST	51.3	41.9	0.33	0.65
NEAR EAST	49.1	13.8	0.51	1.0
TOTAL	324.2	21.0	1.98	0.6

Source: FAO.

Fuelwood constitutes the main source of energy both for domestic and industrial purposes in these countries. Of the 30 LDCs for which records are available, 24 depend on fuelwood for more than 70% and 11 for more than 90% of their energy supplies.

LDCs as a whole depend on fuelwood for about 78% of their energy supplies (Table 18). Their total consumption of wood as fuel is 234 million m^3. This is equivalent to 2208 thousand tera joules (2208×10^{15}) in a total energy consumption of 2826 thousand tera joules or 78 percent. Not only are many of these countries heavily dependent on wood fuel but they are in situations of acute scarcity in fuelwood supply at least in the most densely populated regions or are already in deficit vis-à-vis the capacity of forest and trees to meet their fuelwood requirements on a sustained basis.

TABLE 18. LDCs, ENERGY CONSUMPTION, 1986

	Fuelwood	Energy Fuelwood	Commercial	Total	Fuelwood, Share of Total
	million m^3	..... 10^{15} Joules.....			%
AFRICA	145	1370	180	1550	88
ASIA/FAR EAST	65	626	300	916	67
NEAR EAST	244	222	138	360	61
TOTAL	234	2208	618	2826	78

Source: FAO.

Over the period 1980-1986, the fuelwood demand in these countries is estimated to have increased by around 2% per annum, approaching the rate of growth of population.

The market price for fossil fuels rose to a peak 50% above 1980 in real terms in 1982 and remained 25% up until 1985. Total and per capita consumption in African LDCs fell by 25% in this period. Thus the pressure of demand for wood fuel was sustained and there was no relief from substitution of modern sector energy that has been a feature of urbanisation in developing countries. In spite of high energy prices Asian LDCs increased modern sector energy consumption supported by substantial growth of domestic production, particularly of gas. Their imports remained constant. The drastic fall in fossil fuel prices in 1986 to a level equivalent to about half that of 1980 is not reflected yet by available statistics on energy consumption. It may be expected to permit some resumption of substitution of modern fuels for biomass in urban areas. The overall picture is one of continuing dependence on biomass as the main source of energy in these countries.

Wood industries play a relatively minor role in the economies and material supply in most of the LDCs.[3] The total production of sawnwood and wood based panels is 1.8 million m^3 just over 1% of developing country

production and the production of paper 180 000 tons less than 1% of the developing country total. Sawnwood production has been static or has even declined in several countres during the 80s. Exceptions have been Tanzania which increased production of sawnwood by 25%, Burma which reached peak production levels in the early 1980s. Paper production is limited to five countries. Tanzania brought a paper mill into production during the 1980s and Bangladesh increased production by about 25% during the period.

Consumption of modern sector forest products are at very low level in the LDCs. Sawnwood averages 4.5 m^3, while paper consumption is around 0.5 kg per caput. Apart from Bangladesh and Tanzania domestic paper consumption is largely dependent on imports.

Forest products other than wood are particularly important sources of food and income for rural populations. Fruits, nuts and other plant products of the forest augment food supplies and enrich the diet. Wild animals and insects from the forest are important sources of protein. The forest also provides the raw material for small-scale enterprises producing goods essential to the local economy and contributing to the cash income of local communities. In the case of countries such as Sudan and Niger, gum arabic is a forest product contributing both to the local economy and to export.

The trade in forest products is a small part of the trade of the least developed countries amounting to about 1% of total trade. Total imports rose from $163 million in 1980 to $186 million in 1987, $110 million of the latter being imports of paper. However forest products imports of African countries fell slightly while the imports of LDCs in the Far East doubled in value and imports of the Near East increased by 20%.

Wood products exports were significant only in 5 developing countries. Total value of exports was $213 million in 1987; Burma accounted for $140 million of this total; the Central African Republic $18 million, Equatorial Guinea $18 million, Nepal $12 million and Lao $10 million were the other main contributors. In addition, the Sudan had exports of gum arabic worth $60 million. From 1980 Burma's exports increased 30% from $110 million, Equatorial Guinea increased its exports sevenfold from $2.5 million while the exports of the Central African Republic fell back to half the 1980 level of $38 million.

In 1985 the Tropical Forestry Action Plan (TFAP) was launched as a joint initiative of FAO, the United Nations Development Programme, the World Bank and the non-governmental organizations, the World Resources Institute. The Plan is the centre of a coordinated approach to mobilizing international effort to reversing the problems of degradation and destruction of tropical forests, securing their contribution to the economic and social well-being of rural people in developing tropical countries and conserving their environment. This is an international collaboration between tropical countries, international and national development agencies. Although the TFAP has been launched recently, it can already be credited with promising results. The Plan has focussed international attention on the crisis of the forests, has put conservation squarely on the agenda of international development and has initiated an international effort to reduce deforestation and to promote sustainable use of forests. Its integrated approach, which involves collaborative action within countries between involved sectors and disciplines and between government agencies and non-governmental organizations, has been held up as

a model for development work. Donor countries have expressed their commitment to doubling the allocation of finance to forestry development and several countries have already translated this to their budgets. Thus there is real promise that the national forestry action plans of LDCs will be met by the mobilization of real resources. Already 17 of them have initiated national planning exercises, in collaboration with the international community, aimed at reassessing the situation in the forestry sector, identifying priority areas for action and coordinating the contribution of national and international development agencies in support of the action programmes.

6. Human Resources

A comprehensive concept of development goes beyond macro-economic considerations or the technical aspects of developing and managing natural resources for agriculture. It calls for a transformation of rural life and activities in every respect: economic, social, cultural, institutional, etc. This requires strategies and programmes for rural populations which enable them to raise their technical abilities and skills, and to participate in the development process.

While in many developed countries human resources constitute a main asset of a society or a nation they represent in many least developed countries a major burden, since they are not well developed. Unemployment, poverty, hunger, poor health and even crime, violence or intolerance are, in the final analysis, closely linked to the under development of human resources' potentials. Conversely, the development of human resources is predicated on meeting the basic human needs for food, health, shelter and education. Without these, life is impoverished and endangered.

In least developed countries, a major imperative is, therefore, the development of human resources in the rural areas. The majority of their rural dwellers are farmers on whom the country depends for the supply of food. To become more productive, on the one hand farmers need to develop their awareness of being participants in the overall development process. On the other hand, they must be provided, through education and training, with the necessary technical know-how for increasing agricultural output. Improvements in health and welfare, through proper nutritional habits, manageable family size, environmentally safe housing conditions, etc., which result from increased income, will in turn further increase farmers'productivity.

Many LDCs face problems and constraints which need to be removed or minimized so as to accelerate development.

a). Insufficient priority to human resources development

Many governments of least developed countries are faced with budgetary stringencies which have led them to cut investment, reduce public expenditure and impose a deflationary contraction on the economy. Unfortunately, human resources development has often been the first victim of austerity measures. Indeed, in many LDCs, central government outlays on the social sectors have decreased relative to total government expenditure and in real per capita terms.

More effective policy advocacy is thus needed so that policy makers recognize that the human dimension should not be overlooked in adjustment efforts.

b). Inadequate utilization of human resources

Another main problem of the LDCs is the inadequate utilization of their educated and trained manpower in the development process including agricultural and/or rural components. There is evidence that in many areas much effort has been wasted because human resources development has not gone hand-in-hand with other factors of development. This has led to mismatches between trained manpower supply and demand, and to the under-performance of many specific development projects. The effective deployment of human resources requires a clear-sighted strategy rooted in an appreciation of the human implications of development policies.

Another serious impediment is the absence of appropriate salary and career incentives which causes agricultural personnel to seek more rewarding employment elsewhere. Sometimes trainees do not wish to pursue careers for which they are trained, and may be lost to other countries or to the non-agricultural sector.

c). Inadequate institutional linkages

The multiplier effect of training can only be fully realized if solid links are established between training systems and producers. A necessary prerequisite for rural development is therefore that extension services and other institutions which provide economic and social services, and interact directly with small farmers and other disadvantaged groups.

Rural development involves both horizontal and vertical linkages. Research will lead to recommendations for improvements in production, which need to be conveyed to producers through extension networks. Farmers, however, will only be able to implement these recommendations if the inputs required are available to them on reasonable and secure terms, and if they are assured of a market and fair prices for their output. This calls for integrated inputs delivery systems, and supporting rural institutions for credit, marketing and other requisites. Training in an essential element at all levels and must take account of these inter-relationships.

In addition, there is often a hiatus between grassroots work and more restricted spheres of decision-making. This can be remedied by a deliberate effort to decentralize action to local level and to systematically link technical assistance with local activities. International organizations have an important role to play in this regard. The new dimensions through which local expertise is brought to bear on project implementation is an important step in this direction.

d). Need for more systematic asessment of manpower requirements

Governments of least developed countries generally do not have comprehensive plans for manpower development in agriculture, fisheries and forestry. Training activities at the local, national regional and international levels tend to take place without a clear relation to any comprehensive set of national policies and programmes for human resources development.

In the absence of systematic assessments, ad hoc decisions sometimes lead to the duplication of training programmes, under-utilized training facilities or equipment, and ineffective and costly operations. Another problem is that institution-building projects have, in some instances, been designed with too short a time frame.

As a major effort to assist African countries to assess their agricultural training needs, FAO conducted, in 1983, a survey of trained manpower requirements in the agricultural sector. This manpower assessment provided data on over 400 000 trained agricultural personnel in 46 African countries, of which 26 were LDCs, and on more than 500 agricultural training institutions in Africa. The survey revealed that there was a relative abundance of professional staff, while middle-level technical personnel was in short supply, when compared with estimatd manpower requirements. However, numbers of professional personnel are still inadequate in the forestry and fisheries sub-sectors. When the current capacity of training institutions was related to projected manpower needs in agriculure up to the year 2000, it was found that 10 LDCs had less than 50 percent of projected trained personnel needs in agriculture at the professional level and 15 LDCs at the technical level. This type of systematic assessment of training requirements is an essential element of human resources development planning.

7. Environment

The process of environmental change has frequently outpaced the ability of LDCs to deal with it. This is seen in the form of tropical deforestation; overgrazing of arid and semi-arid lands; loss of biological diversity; soil degradation, including erosion, salinization and alkanization; and, misuse of agrochemicals. Recently, global and regional issues such as the buildup of greenhouse gases have also received attention and could pose serious problems for countries including LDCs, with low living deltas and floodplains which are sensitive to rises in sea level.

As environmental issues have progressively received higher priority, it is clear that LDCs need greater assistance in strengthening their capacity to identify and deal with environmental and natural resource problems.

Weak environmental policies and institutions, a lack of trained personnel and poor access to relevant technical information, are among the primary constraints faced by these poorer countries. Many of the countries feel they cannot afford to deal with environmental problems and that economic development is the main priority. Others have simply dealt with environment and development as separate issues, seldom linking their environmental concerns to their development objectives.

The report of the World Commission on Environment and Development, commonly referred to as the Brundtland Commission, has called for new approaches, using environmental protection and natural resources conservation as central criteria for achieving more sustainable forms of development. The report underscores a need which has long been recognized but is difficult to practise -- many environmental problems arising from development activities could be avoided by using more integrated, multi-disciplinary approaches which are socially adapted and based on the carrying capacity of the ecosystem. The report has initiated a worldwide discussion about the meaning of the concept of sustainable development in practical, operational terms.

Efforts are needed on a number of fronts to assist LDCs in natural resources conservation and environmental protection. The following areas are particularly important:

- Environmental impact assessment procedures which screen project proposals as early as possible and focus on those projects which pose the potential for significant negative environmental effects.

- Preparation of national conservation strategies for the agricultural and rural development sector which identify policy, institutional, training and technical needs related to environment protection and management.

- Increased training and information dissemination at all levels related to issues such as environmental impact assessment, environmental guidelines for project design and environmentally sound development strategies.

- Strengthening environmental policies and technical components of relevant development ministries such as agriculture, forestry, fisheries, planning and finance to incorporate environmental components into their development activities.

- Development of the capacity of countries to identify environmental problems and carry out environmental impact assessments at national and district level for development activities which may have significant negative environmental effects.

III. EXTERNAL FACTORS

1. Economic Environment

External factors were particularly inimical to agricultural development in LDCs during the 1980s. The slow economic and trade growth and widening imbalances that arose in the international economic and trading system contributed to depress import demand, particularly for agricultural products. Such sluggish international demand, and uncertain market signals failed to transmit any dynamic impulse to agricultural trade. The prices of many commodities exported by LDCs plunged to extremely low levels, with only transitory relief in 1984.

Such a pronounced fall in prices was largely influenced by the appreciation of the US dollar during the first half of the decade. However, if nominal dollar prices are deflated by prices of manufactured goods or prices are converted to special drawing rights (SDR), agricultural (and mining) commodity prices also deteriorated. According to UNCTAD estimates, commodity prices in nominal terms fell on average 7.4% a year between 1981 and 1985; in terms of SDR the fall was 2.4% yearly. After 1985, and more particularly in 1987, agricultural prices of many agricultural commodities of export interest to LDCs continued to fall in nominal US dollar terms and, with the depreciation of the dollar, even more in real terms (**Table 19**). It had been often assumed that the strengthening of the dollar until early 1985 was largely responsible for--and contributed to offset--the weakness of agricultural prices denominated in dollars. The post-1985 experience has shown however that expectation to be wrong, underlining the far more important role of commodity-specific supply/demand relationships in determining commodity prices.

Prices of most agricultural commodities except bananas--a relatively minor export crop for LDCs--showed sharp declines throughout the decade, with some of them only partially recovering during 1988-89. In the extreme case of sugar sold on the free market, deflated prices fell about 70% between 1980 and 1988. For tropical beverages and cotton the declines were in the order of 40%.

Beyond short-term factors related to the current world economic environment, the decline in commodity prices also reflected long-term problems of a more structural nature: excess supply relative to demand in world markets for many agricultural products; saturation of markets following the entry of new exporters; export subsidies in some developed countries; and substitution effects. The economic depression of the early 1980s could only accentuate the effects of such long-term influences and expose the rigid and narrow export base of LDCs to such overwhelming challenges. Thus, export revenues from agriculture faltered at a time when the foreign servicing needs became particularly compelling and the climate for external assistance was less than propitious.

2. External Debt and Agriculture

Although the problem of external debt transcends the scope of this report, an attempt can be made at assessing the extent to which agriculture--specifically agricultural trade--contributed to alleviate the debt servicing burden of LDCs.

The global debt of LDCs more than doubled in nominal terms between 1980 and 1986, from US $21 435 million to US $43 853 million. Africa

TABLE 19. SELECTED COMMODITY PRICES, 1980 TO 1989, CURRENT AND DEFLATED a/

	Rice b/	Coffee	Cocoa	Tea	Sugar	Bananas	Cotton	Jute
				$ per ton				
CURRENT								
1980	-	3 329	2 603	2 232	633	378	2 185	407
1981	489	2 555	2 077	2 053	371	404	1 967	386
1982	300	2 756	1 736	1 938	184	374	1 658	356
1983	290	2 822	2 119	2 267	186	430	1 854	340
1984	262	3 113	2 397	3 496	115	369	1 790	541
1985	227	2 934	2 255	1 994	90	378	1 572	613
1986	225	3 768	2 068	1 930	133	382	1 263	326
1987	244	2 379	1 997	1 709	149	305	1 634	389
1988	311	2 557	1 584	1 790	225	473	1 521	440
1989 (two quarters)	289c/	2 573	1 346	1 792	252	432c/	1 595	440
				1980=100				
DEFLATED								
1981	100	81	84	97	62	113	95	100
1982	62	89	72	94	31	106	82	94
1983	63	96	91	115	33	128	96	94
1984	59	108	106	180	21	113	94	153
1985	50	101	100	102	16	115	83	174
1986	43	112	78	85	21	100	57	79
1987	42	63	68	68	21	71	66	85
1988	50	64	51	67	30	104	58	90

a/ Deflated by the UN index of export unit values of manufactured goods, excluding petroleum.
b/ 1981 = 100.
c/ First quarter of 1989 only.

Note: Rice: Thailand 100% II gr.
Coffee: Green 1979 ICA.
Cocoa: UK exp. London spot.
Tea: London auction.
Sugar: Raw, ISA, daily, fob.
Bananas: NY, FOR green 1st class, Central and South America.
Cotton: Lint, Menphis territory.
Jute: Bangladesh Chittagong, fob, BWC.

accounted for 47% of total LDCs debt in 1986, the Far East for 27% and the Near East for 25%--these shares having remained relatively constant throughout the 1980s.

The global level of LDCs debt service payments also more than doubled from US $895 million in 1980 to US $2 003 million in 1986. By contrast LDC total merchandise exports declined from US $9 973 million to US $9 517 million during the same period. As a consequence, the ratio of debt service to exports more than doubled, from 9% to 21% (see Annex Table 10). The problem of debt, which had been relatively manageable for most LDCs in the early 1980s, rapidly became an overwhelming burden for many of them. In Burma, Guinea Bissau, both Yemen Democratic Republic, Yemen Arab Republic and Somalia, the service of debt absorbed over 40% of total export earnings in 1986. In only 10 out of 28 countries did the debt service ratio remain below two digits.

In the face of such mounting debt problems, the agricultural sector faltered. As reviewed earlier, many LDCs have few resources other than agriculture to generate foreign currency, finance imports and service debt. Yet, their export earnings from the sector fell 1% annually during 1981-87 so that debt servicing came to represent a growing share of export earnings from the sector (**Table 20**). It appeared nevertheless that agricultural was relatively more successful than other sectors in cushioning the effects of the growing debt service. The share of debt service/total exports rose 134% during 1980-86 compared to 122% for the debt service/agricultural exports ratio, and the former was higher than the latter for two-thirds of the LDCs.

3. Resource Flows to Agriculture

Total official commitments of external financial assistance to agriculture (OCA) to LDCs slightly fell from a yearly average US $2 250 during 1980-82 to an estimated US $2 200 in 1985-87 (**Table 21**). The decline was more substantial in constant 1980 prices however: from US $2 386 to US $2 182 (-8.6%) during the same three-year average periods. Thus, one important prerequisite for the success of the SNPA for LDCs for the 1980s--increased financial assistance from the international community--was seriously unfulfilled in the case of agriculture. This situation appears all the more anomalous considering that OCA to non-LDCs rose 16% in constant 1980 prices between 1980-82 and 1985-87, although much of the increase in recent years was in non-concessional commitments by the IBRD, in particular to China and India. Some encouragement may be nevertheless derived from the fact that the share of concessional commitments of total OCA to LDCs (about 95% in recent years) remained well above that to developing countries as a whole (about two-thirds). On the other hand, the reliance of LDCs on concessional commitments exposed them to the failure of such commitments to have significantly increased in real terms in recent years.

The overall reduction in OCA to the LDCs reflected relatively stable levels of bilateral commitments (except in 1982 and 1986 when they substantially rose) and erratic, but generally declining, multilateral commitments, particularly from IDA, the main source of concessional assistance to agriculture. On the other hand, regional development banks and funds considerably increased their commitments, more markedly in 1987.

Flows of external assistance should also be gauged in the light of actual disbursements of commitments to agriculture. Rates of disbursements

TABLE 20. RATIO OF TOTAL DEBT SERVICE TO AGRICULTURAL EXPORTS

	1980	1981	1982	1983	1984	1985	1986
	..... %						
Kiribati							
Cape Verde	6.1	1.94	38.9	94.3	2491	153.5	109.0
Burma	30.7	33.2	37.5	40.1	52.8	70.5	81.7
Samoa	28.3	34.9	24.1.	24.2	23.8	41.2	59.9
Sao Tomé and Principe	5.9	10.8	16.5	23.4	32.4	48.1	31.9
Gambia	2.1	11.9	60.4	27.1	19.9	10.9	79.8
Yemen Dem.	39.2	140.5	181.5	247.8	348.1	410.1	393.4
Laos	...	...	...	...	...	...	...
Yemen Arab Rep.	108.5	448.4	345.2	313.1	566.3	721.8	758.4
Uganda	6.4	23.9	15.5	21.2	22.2	10.6	7.1
Botswana	27.5	10.1	16.0	28.7	46.2	61.8	76.1
Togo	60.1	68.5	76.8	93.8	96.4	112.6	123.7
Group I	**24.8**	**38.7**	**37.7**	**43.9**	**54.4**	**61.2**	**71.0**
Malawi	26.8	36.8	28.1	25.5	24.5	35.4	47.0
Niger	45.5	72.5	136.0	137.8	67.2	103.0	120.1
Vanuatu	1.7	1.9	2.7	1.9	1.3	2.0	6.9
Lesotho	31.4	33.9	67.8	105.9	94.2	108.8	103.4
Afghanistan	...	...	...	...	...	...	...
Burundi	9.7	7.5	6.6	9.4	18.1	22.4	19.5
Tanzania	18.2	17.4	18.0	19.7	22.3	24.0	20.2
Group II	**22.5**	**27.1**	**32.5**	**31.1**	**28.3**	**36.0**	**37.6**
Benin	16.3	44.3	72.1	78.3	48.8	27.4	82.2
Guinea Bissau	42.6	28.1	30.3	29.3	25.3	56.1	99.5
Mauritania	63.9	69.9	55.9	35.5	32.7	47.8	37.1
Comoros	4.1	2.7	5.7	9.8	45.2	13.6	8.7
Somalia	7.0	30.8	8.0	26.4	43.7	46.3	83.3
Maldives	4.4	8.5	24.2	63.5	140.9	50.4	79.8
Nepal	7.9	6.4	7.4	13.1	14.6	19.8	39.3
Burkina Faso	21.2	21,9	31.8	29.0	24.3	50.9	67.5
Mali	4.9	4.7	4.2	8.4	8.9	20.3	23.4
Bangladesh	33.1	48.9	56.0	53.2	58.0	68.4	86.9
Haiti	18.2	44.2	29.5	219.6	25.6	30.4	26.6
Group III	**19.8**	**29.4**	**24.8**	**28.9**	**36.0**	**14.8**	**60.0**
Sudan	18.8	30.3	23.1	17.0	8.8	24.3	17.8
Central African Rep.	1.7	4.1	5.9	11.7	22.8	16.0	22.5
Rwanda	6.5	6.0	6.3	23.7	14.0	20.3	10.8
Sierra Leone	65.9	108.3	26.5	30.7	50.4	16.8	25.3
Guinea	287.9	282.0	254.5	195.4	510.0	351.5	336.2
Ethiopia	8.7	12.3	14.7	18.7	22.2	34.3	39.3
Chad	2.2	0.4	0.9	0.3	2.7	6.4	2.5
Mozambique	-	-	-	-	-	-	-
Group IV	**21.1**	**28.0**	**22.4**	**21.4**	**22.2**	**29.8**	**31.6**
Others							
Bhutan	...	...	...	...	...	...	...
Djibouti	91.2	115.9	107.6	116.2	108.3	88.2	184.6
Equatoria Guinea	14.1	20.7	13.4	7.9	5.1	6.0	13.1
Tuvalu	-	3.2	2.4	2.3	1.9	1.8	-3.1
Total LDCs	**22.0**	**30.6**	**28.5**	**31.6**	**33.9**	**42.8**	**48.8**

Source: World Bank and FAO

TABLE 21 LDCs, COMMITMENTS OF EXTERNAL FINANCIAL AID TO AGRICULTURE, 1980-87

Donors	1980	1981	1982	1983	1984	1985	1986	1987
	..... millions US$							
TOTAL BILATERAL	1 070.12	1 110.91	1 465.03	1 001.24	1 075.83	1 079.58	1 363.98	1 187.82a/
of which:								
DAC/EEC	958.20	978.21	1 157.17	958.48	923.17	1 012.53	1 326.55a/	1 097.61a/
OPEC/BILATERAL	111.92	132.70	307.86	42.76	152.66	67.05	37.43	90.21
WORLD BANK	584.30	459.30	588.99	631.93	370.76	498.15	359.50	273.80
of which:								
IBRD	-	1.00	-	-	12.30	17.10	20.60	-
IDA	584.30	458.30	588.99	631.93	358.46	481.05	338.90	273.80
IFAD	156.71	109.53	113.77	81.76	54.20	118.52	59.33	70.94
REGIONAL DEV. BANKS	289.98	376.74	268.96	480.10	172.34	289.24	334.28	610.81
of which:								
AIF	114.23	132.72	92.54	79.55	105.97	167.29	82.68	338.49
AFDB	22.96	56.22	72.42	29.53	14.73	21.75	-	35.82
ASDB	148.69	175.80	103.50	338.42	34.24	95.86	243.17	233.70
IDB	4.10	12.00	0.50	32.60	17.40	4.34	9.42	2.80
OPEC/MULTILATERAL	68.55	48.75	44.61	116.06	135.95	159.36	107.42	87.08
MULTILATERAL	1 099.54	994.32	1 016.33	1 309.85	733.25	1 065.27	861.53	1 042.63
TOTAL	2 169.66	2 105.24	2 481.36	2 311.09	1 809.08	2 144.85	2 225.51a/	2 230.45a/
of which:								
CONCESSIONAL	2 129.91	2 026.77	2 402.66	2 254.06	1 763.69	2 052.02	2 179.94	2 178.56
NON-CONCESSIONAL	39.75	78.47	78.70	57.03	45.39	92.83	45.57	51.89
Total at 1980 pricesb/	2 169.66	2 239.61	2 697.13	2 626.23	2 103.58	2 465.34	2 160.68	1 922.80
Deflator	100	94	92	88	86	87	103	116

a/ Including partial estimates.

b/ Deflator used: manufactured goods exports of developed market economies (unit value indices)

Source: FAO.

can be highly variable, but it generally takes more than eight years to disburse the entire amount of each commitment. Thus, figures available for 1980-86 largely reflect the easier financing conditions that prevailed during much of the previous decade. Hence, disbursements to LDCs markedly increased in the early 1980s (from approximately US $1 250 million in 1980 to US $1 655 million in 1983), levelled off in 1984-85, and preliminary data suggest they may have fallen in 1986.

In order to properly compare disbursements of official assistance to agriculture to this very disparate group of countries, disbursements are shown in terms of the countries' agricultural labour forces (**Table 22**) and according to the four groups of countries shown at the beginning of this report.

TABLE 22. LDCs, DISBURSEMENTS OF OFFICIAL ASSISTANCE TO AGRICULTURE PER PERSON AGRICULTURAL LABOUR FORCE, 1980-81 AND 1985-86

	1980-81	1985-86	Change 1980-81 to 1985-86
	..... $		%
Group I	13.80	12.90	-6.5
Group II	13.70	10.00	-27.0
Group III	17.70	18.00	1.7
Group IV	6.80	10.30	51.4
Others	4.10	15.80	285.4
Total LDCs	12.90	13.50	4.7
(In 1980 prices)	(13.30)	(14.21)	(6.8)
All developing countries	6.70	9.00	34.3
Developing non-LDCs	5.90	8.40	42.4

Source: FAO.

LDCs clearly receive significantly more assistance to agriculture than non-LDC developing countries, currently about 60% more in terms of the people estimated to be working in agriculture, but even between the groups of countries, the range is large: about 40%. However, even when measured in this way, the increase in disbursements to LDCs during the first half of the SNPA overall has been significantly less than that of the developing non-LDCs, about 5% compared to more than 40% respectively. In other words, the developing non-LDCs have significantly caught up. This apparent anomaly is explained by the relatively weak performance of concessional flows of assistance, such as IDA, on which the LDCs depend almost exclusively. Non-concessional flows, mainly to non-LDC developing countries, had grown relatively faster. Hence, the flow of resources to the LDCs during the first six years of the SNPA, was adversely affected by the funding difficulties faced by the overall assistance programme during the early 1980s.

Converting to constant 1980 dollars little changes the overall picture. The US dollar in 1980-81 was slightly weaker than in 1985-86 when it was falling from its peak value, and inflation in prices of manufactured goods, the deflator used, has been low during the period reviewed. Therefore, in real terms and per person of the agricultural labour force, disbursements of assistance to LDCs agriculture grew at 1.3% a year, a very

modest rate of progress in relation to the aspirations of the SNPA. Nevertheless, for some small countries previously outside the development assistance 'net', such as Equatorial Guinea and Tuvalu (included in the 'others' group in **Table 22**, there has been a notable increase in disbursements to agriculture.

4. Food aid

Most LDCs are major recipients of food aid. In absolute terms such food aid is largely concentrated on the largest countries. Bangladesh alone accounted for about 30% of the total food aid increases received by LDCs in recent years, Sudan for 20% of the total and Ethiopia for 15%. In per caput terms, however, the picture differs. The largest recipients during the 1980s were by far Cape Verde followed by São Tomé and Principe, Djibouti, and Botswana--significantly, the four countries among the LDCs where agricultural GDP has the smallest economic weight. Highest average levels of per caput food aid were in countries in Group IV, reflecting the particularly grave food shortages and emergency situations faced by several of them (**Table 23**). The total volume of food aid in cereals recieved by LDCs rose from 2.6 million tons in 1980/81 to a peak 5.5 million tons in 1984/85, when record levels of food aid were provided as a response to the African food emergency shipments then fell back to 4.45 million tons in 1986/87.

While incomplete data indicate a further increase in food aid shipments to LDCs in 1987/88, these may be substantially reduced in 1988/89 as a result of the recent decline in world food aid availability caused by high prices of cereals confronting commitments fixed in financial terms.

The particularly disadvantaged food supply position and frequent food emergency situations of many LDCs, have justified their preferential treatment from food aid donors compared to other developing countries. The LDCs, which accounts for about 10% of the population of developing countries, have received about one third of the total food aid in cereals shipped during the 1980s. Moreover, this share has steadily increased, from about 30% in the early 1980s to 40% in recent years. By another measure, food aid in cereals averaged approximately 12 kg per caput/year in LDCs in the mid 1980s compared to 4 kg/caput/year in non-LDC sub-Saharan African countries.

TABLE 23. LDCs: PER CAPUT FOOD AID IN CEREALS, 1980/81 TO 1986/87

Country	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87
	..... kg/caput						
Kiribati	6.8	7.7	...	9.7	...	...	7.2
Cape Verde	105.1	177.7	113.0	199.4	155.0	155.6	178.1
Burma	0.2	0.2	0.3	0.2	...	...	...
Samoa	2.9	0.2	-	...	...	...	...
São Tomé and Príncipe	18.1	35.5	17.6	102.2	108.1	59.5	77.0
Gambia	27.7	35.4	21.1	30.5	33.5	28.8	20.1
Yemen Dem.	0.7	2.1	4.4	0.8	5.1	8.3	11.8
Laos	0.5	0.4	0.2	0.5	1.6	1.1	...
Yemen Arab Rep.	0.7	2.1	4.4	0.8	5.1	8.3	11.8
Uganda	4.3	3.6	1.0	0.7	2.1	0.4	0.9
Botswana	12.4	6.9	12.1	31.0	36.2	44.5	38.2
Togo	1.7	1.7	2.5	3.1	8.0	3.1	2.0
Group I	**2.6**	**2.8**	**1.9**	**2.5**	**3.4**	**2.9**	**3.2**
Malawi	2.8	0.3	0.4	0.6	0.8	0.7	1.5
Niger	2.1	13.1	2.1	2.2	37.3	17.6	1.7
Vanuatu	...	...	...	...	...	...	5.5
Lesotho	32.9	24.9	20.3	34.8	47.8	26.6	20.6
Afghanistan	4.7	5.1	4.1	6.1	3.0	10.3	5.9
Burundi	2.8	2.1	1.5	2.5	3.7	1.2	0.4
Tanzania	12.5	15.7	8.5	6.8	5.8	2.9	2.4
Group II	**7.4**	**9.3**	**5.2**	**5.6**	**8.4**	**6.5**	**3.4**
Benin	3.2	2.3	3.8	1.5	5.5	2.7	1.9
Guinea Bissau	32.3	36.4	41.2	22.5	35.3	20.0	10.6
Mauritania	65.1	51.5	41.3	72.4	73.8	72.3	15.5
Comoros	5.9	20.2	17.0	12.6	12.6	16.8	21.9
Somalia	82.1	44.9	44.2	40.2	54.9	30.7	32.8
Maldives	...	43.6	...	3.5	10.9	101.3	59.7
Nepal	3.1	1.5	2.8	1.9	0.6	0.6	1.3
Burkina Faso	8.3	12.8	7.0	8.7	18.4	16.8	3.1
Mali	7.2	9.2	11.9	14.5	33.9	10.3	9.2
Bangladesh	8.4	11.1	13.4	12.1	15.2	12.9	15.3
Haiti	14.4	15.1	14.7	11.4	15.8	20.1	13.2
Group III	**10.6**	**11.4**	**12.8**	**12.0**	**16.2**	**12.7**	**12.7**
Sudan	10.4	10.1	16.7	22.1	38.9	43.6	40.1
Central African Rep.	1.1	0.8	1.9	3.1	4.6	4.2	2.3
Rwanda	2.9	2.4	2.3	4.5	5.9	4.1	1.5
Sierra Leone	3.6	5.6	8.5	4.6	5.9	13.5	11.7
Guinea	6.3	7.00	4.4	7.4	8.7	9.5	14.6
Ethiopia	5.9	4.8	8.8	4.2	20.5	18.4	12.7
Chad	3.2	6.3	7.7	14.4	33.3	16.3	5.6
Mozambique	12.8	11.9	13.5	23.5	27.9	18.8	24.0
Group IV	**7.1**	**10.2**	**10.0**	**11.0**	**22.9**	**21.1**	**18.4**
Others							
Bhutan	0.9	0.8	1.9	4.8	3.6	2.1	2.3
Djibouti	44.2	34.8	25.0	30.8	42.4	54.4	43.7
Equatorial Guinea	5.9	22.00	32.3	21.2	18.4	13.7	3.6
Tuvalu	...	...	...	...	...	...	...
Total LDCs	**7.7**	**8.3**	**8.2**	**8.7**	**14.3**	**12.3**	**10.9**

Source: FAO.

IV. POLICY CHANGES IN THE CONTEXT OF MACROECONOMIC CONSTRAINTS

1. Agricultural and Structural Adjustment

It is impossible here to comprehensively yet concisely review the policies in natural resources and rural development in more than 40 countries during a 10 years period. All that can be done is to briefly survey the field and draw some general conclusions.

During the 1970s, the LDCs as with all developing countries, were subjected to a series of economic shocks. Chief amongst these was the oil price rise of 1973-74--the first oil shock--which carried major implications for both the oil exporting and oil importing countries, with the LDCs among the latter. Rises in prices of other primary commodities followed as evidenced by the agricultural commodity price boom of 1977-78, accompanied by an acceleration in inflation on a global scale. During this time, the LDCs, as already noted, did not significantly benefit from the large capital inflows from private sources, generally at floating interest rates, which later were to become a servicing burden for many non-LDC developing countries. Nevertheless, the levels of LDCs official debt mounted. Essentially, however, during the 1970s, most LDCs failed to adequately adjust their economies to changing prices and circumstances. Their governments became increasingly involved in the process of development, intervening more widely in economic activities, often through the establishment of parastatals.

The second oil price shock of 1979-80 and its consequences was a severe blow to the typically fragile and already over-extended economies of LDCs. Increasing pressures were exerted on their external accounts requiring, in some cases, drastic stabilization or adjustment measures. These latter had little time to take effect before the global recession of 1982-83 began to exert a downward pressure on commodity prices, not only of agricultural commodities but also of minerals and metals that are of prime importance to some LDCs economies. It has been already noted that the LDCs are particularly dependent on a few commodities for their export earnings. While overall LDCs terms of agricultural trade did not deteriorate drastically, individual countries were seriously affected, their external purchasing power stagnating despite efforts - in some cases successful - to expand the volume of their exports. Declining or even only stagnating export earnings, coming at a time of increased pressure on their external balances created serious difficulties for most LDCs. They found themselves facing an external payments situation similar to that of the major developing country borrowers, although they had not incurred such high levels of debt, and that mostly from official sources.

Such difficult situations were compounded in many cases by adverse weather conditions. It must be recalled that the 1983-84 drought in Sub-Saharan Africa, where most LDCs are, was more widespread and, indeed, deeper than that of the Sahel countries during the 1970s. In several other cases, wars or civil strive also disrupted economic activities and effectively negated attempts at economic stabilization. The outcome has been an extended period of adjustment within the umbrella of various programmes supervised by the World Bank and IMF. More than half of the LDCs were the subject of standby arrangements or structural adjustment facilities during 1981-88 (**Table 24**).

TABLE 24. LDCs, STRUCTURAL ADJUSTMENT FACILITIES (SAF) EXTENDED DURING 1981-SEPTEMBER 1988

	Stand by arrangements	Extended arrangement	SAF arrangement	ESAFa/ arrangement
AFRICA				
1. Burundi	x		x	
2. Central African Rep.	xxxx		x	
3. Chad			x	
4. Equatorial Guinea	x			
5. Gambia	xxx		x	
6. Guinea	xxx		x	
7. Guinea Bissau			x	
8. Lesotho			x	
9. Malawi	xx	x		x
10. Mali	xxx		x	
11. Mauritania	xxx		x	
12. Mozambique			x	
13. Niger	xxxx		x	
14. Sierra Leone	xx		x	
15. Somalia	xxx		x	
16. Tanzania	x		x	
17. Togo	xxxxxx		x	
18. Uganda			x	
FAR EAST				
1. Bangladesh	xx		x	
2. Nepal	x		x	
3. W. Samoa	xx			
NEAR EAST				
1. Sudan	xxx			
LATIN AMERICA				
1. Haiti	xx		x	

a/ ESAF = Enhanced Structural Adjustment Facility.

Source: IMF Survey, various issues.

The other 'umbrella' programmes greatly influencing the focus of agricultural policy in the LDCs in the 1980s, have been Africa's Priority Programme for Economic Recovery 1986-90 (APPER), adopted by OAU in July 1985, which became integrated with the UN Programme of Action for African Economic Recovery and Development 1986-90, UN-PAAERD. These programmes are firmly based on the objectives of the Lagos Plan of Action of 1980, and place food and agriculture squarely in the centre of development priorities.

Nevertheless, the argument here is that the agricultural policy stance adopted by these countries has reflected a mix of macroeconomic and sectoral policy adjustments. Agriculture was significantly affected by the former both because it is a highly tradable sector and it typically has a large share of these countries' economic activities, as described earlier. In some cases the resulting policy stance towards agriculture has not been consistent, with incentives provided by one set of measures being offset by other measures, in most cases because the objectives have been macro-economic, and mainly the correction of current account or fiscal imbalances. A widely adopted policy has been the devaluation of currency in an attempt to restrain imports and promote exports. The large majority of LDCs have very significantly devalued their currencies since 1980 (**Table 25**). Out of the 28 LDCs for which data on exchange rates are available for 1980-87, 26 had devalued against the SDR (Special Drawing Right), with one currency remaining pegged to it for the whole period. The arithmetic average for the devaluing countries was 46% between 1980-88, with several countries devaluing by more than 90%.

The majority of LDCs have attempted to provide incentives to agricultural production by raising producer prices of both domestically consumed and export products: the latter being assisted by currency devaluations. These attempts have not always been successful in maintaining producer incentives, however, because higher producer prices were confronted with higher costs of inputs or consumer goods. In turn such higher input costs or prices of consumer goods stemmed either from currency devaluations and/or higher consumer prices of domestic food products caused by higher producer prices. Such situations highlight the difficulty of increasing supplies of agricultural products by price measures alone. For some recent examples, Burkina Faso increased the parastatal buying prices of coarse grains by 25-32% in 1987/88, which involved raising consumer prices by a similar amount. Ethiopia also raised cereal prices by 10% in 1988, the first rise in some years. With regard to prices of export crops, the Gambia raised producer prices of groundnuts by nearly 43% for the 1986/87 season.

Agricultural marketing reforms have been another frequently adopted policy tool. The objectives have been multifold: not only to raise producer prices by reducing marketing costs (in other words, to enable the producer to obtain a larger share of the consumer price) but also to reduce government intervention in agricultural markets. The prime objective has been to reduce government expenditures as a means of reducing fiscal deficits but, in the search for greater efficiency and lower costs, there has been the resolve to achieve greater private involvement in agricultural marketing. However, in situations where private initiatives have been effectively halted for an extended period, the act of removing the restrictions will not, by itself, produce a flourishing private sector.

TABLE 25. EXCHANGE RATES OF LDC CURRENCIES AGAINST THE SDR*, 1981-88 WITH RESPECT TO 1980

	1981	1982	1983	1984	1985	1986	1987	1988	Overall change 1980-1988
	..... (% change over previous year)								%
Botswana	-7.6	-12.5	-3.3	-20.9	-33.7	+2.7	1.2	-14.7	-63.4
Burundi	+9.6	+5.5	-19.1	-	-	-19.0	-5.9	-19.9	-42.9
CFA zone a/	-13.9	-9.8	-15.1	-7.0	+13.2	+5.2	4.2	-7.1	-29.4
Ethiopia	+9.6	+5.5	+5.4	+6.8	-10.8	-10.2	-13.8	5.4	-5.2
Gambia	-12.3	-10.7	-5.3	-31.9	11.4	-58.1	-0.5	+1.9	-76.1
Lesotho	-14.6	-6.2	-7.2	-34.2	-30.7	+5.2	-2.5	-14.4	-70.3
Malawi	-	-13.0	-10.7	-11.5	-16.8	-22.8	-18.0	-14.6	-69.1
Mauritania	+3.1	-2.5	-2.2	-9.5	-22.1	-6.6	-10.8	-0.3	-42.3
Rwanda b/	+9.6	+5.5	-0.3	-	-	-	-	-	+15.3
Sierra Leone	-	+0.5	-48.3	+6.8	-57.1	-86.8	33.0	-37.9	-97.4
Somalia	9.6	-55.6	-10.2	-27.9	-45.4	-57.8	-22.0	-61.0	-97.8
Swaziland	-14.6	-6.2	-7.2	-34.2	-30.7	+5.2	-2.5	-14.4	-70.3
Uganda	-89.9	-15.4	-53.4	-50.8	-66.8	-10.2	-79.9	-56.0d/	-100.0
Sudan	-39.2	-26.9	+5.4	+6.8	-53.6	-10.2	-52.1	+5.4	-89.5
Yemen Arab Rep.	9.6	5.3	2.8	-14.8	-35.4	-40.6	6.7	6.9	-55.7
Yemen P.D. Rep.	9.6	5.5	5.4	6.8	-10.8	-10.2	-13.8	9.9d/	-1.2
Bangladesh	-10.3	-13.0	1.5	2.7	-25.2	-9.6	-14.9	1.9	-52.5
Burma c/	-	-	-	-	-	-	-	-	-
Maldives	9.6	13.0	5.4	6.8	-11.7	-11.6	-33.5	+15.6	-16.5
Nepal	-0.4	-2.6	-0.9	-9.8	-22.4	-15.5	-12.2	-9.6	-54.9
Western Samoa	-7.4	-6.2	-19.6	-20.7	-15.5	-5.8	-5.8	-1.3	-59.0
Vanuatu	-12.3	-	-	5.6	-8.5	-22.5	-	-	-34.5

Note: "-" means no change from previous year.

* SDR per local currency.

a/ LDC members of the CFA zone: Benin, Burkina Faso, Central African Republic, Chad, Mali, Niger and Togo.

b/ Rwanda Franc pegged to SDR from September 1983.

c/ Burma: Kyat pegged to SDR since 1977

d/ Third quarter 1988.

Source: IMF, International Finance Statistics.

Nevertheless, several African and Asian countries have introduced sweeping reforms resulting in a liberalization of agricultural product markets. For example, Burkina Faso has liberalized domestic trade in staple cereals, while Mali has been following a 5-year programme of marketing reform since 1981, aimed at eliminating the trading deficit of the cereal marketing parastatal. Nepal also introduced agricultural marketing reforms in 1987, as part of a package of policies accompanying a structural adjustment loan negotiated in October 1987.

The other policy area affecting real agricultural producer returns has been subsidies on inputs, typically physical inputs such as fertilizers or irrigation equipment. The general trend has been towards reducing such subsidies, with the aim of reducing the fiscal deficit. Often such policy measures are accompanied by the liberalization of distribution channels, allowing more private sector or cooperative participation in the marketing of inputs. One example is Bangladesh where three policy measures in this area accompanied the government's Medium-Term Foodgrain Production Plan launched in 1980. These were:

- the opening of import marketing and servicing of irrigation equipment to the private sector;

- the gradual phasing out of subsidized rental programmes of minor irrigation equipment;

- the phasing out of the monopoly of the Bangladesh Agricultural Development Corporation in the wholesaling and retailing of fertilizers, and the reduction in fertilizer subsidies.

Fertilizer use fell back in 1982 following the implementation of these policies but increased by nearly 60% between 1982 and 1987.

The LDCs have adopted diverse agricultural trade policies in the context of significantly devalued currencies which, theoretically should have protected domestic producers from overseas competition, while stimulating exports. However, the extremely low prices of many agricultural products which prevailed particularly from 1985-86, often negated these effects. In 1986, Guinea lifted its restrictions on private imports of rice and exempted rice from duty. Sierra Leone liberalized import trade in 1987 but, in the face of rapidly rising domestic prices for food, reintroduced price controls on imported rice, a staple food.

In contrast, Mali banned rice imports in 1986 and Chad banned the export of livestock (mostly live animals to Nigeria) with the aim of stabilizing domestic prices. Similar restrictions have been placed on cereal exports by Tanzania.

While consistent information is seriously lacking for the LDCs, agricultural investment policies have been largely conditioned by the need to hold down government expenditures even on such a key sector as agriculture. Possibly it is the area of investment which has been the one most negatively affected by the adjustment or stabilization process. Cutbacks in government expenditure could not be distributed so as to minimize the setbacks to investment in agricultural infrastructure as well as the maintenance of existing infrastructure and the operation of agricultural services.

V. CONCLUSIONS

The 1980s, a decade which should have marked tangible economic and social progress for the LDCs, has been a developmental disappointment. Perhaps the most telling statistic is the significant increase in the numbers of the LDCs themselves : no country has moved out of the category. Four issues related to the external sector appear to have been mainly responsible:

- The overall weakness of agricultural commodity prices for much of the decade so far.

- The burden of external debt, not large in comparison with that of some highly indebted developing non-LDC countries, but onerous for the fragile economies of the LDCs.

- The overall stagnation in flows of development assistance following the initial surge of the early years of the decade.

- The initially recessive effects of structural adjustment and economic stabilization measures.

A variety of internal factors also contributed to the disappointing economic performance of LDCs. These included unusually severe and recurrent natural disasters; wars, civil strife, political instability; and, also related to the external problems above, supply constraints arising from restrictions in government expenditure, particularly in investment, the provision of public services and input subsidies; and higher costs of credit, inputs, and capital goods, in particular those with a large import component.

In the crop and livestock sector, the performance in terms of increased output has been extremely variable. A few countries have significantly raised their rates of agricultural growth, in some cases from previously low levels. But, for the majority of LDCs, agricultural production has not kept pace with population growth, a basic but essential criterion, and this has been accompanied by a stagnating economic performance overall. With external account constraints limiting the recourse to food imports, domestic food supplies deteriorated in many countries in some years. As a consequence, the number and proportion of undernourished population has increased and acute cases of famine and starvation occurred.

Nevertheless, some progress can be noted during this difficult decade. Some LDCs have been able to accelerate economic development by exploiting a previously under-exploited natural resource. Fisheries offer several examples, where countries as diverse as Maldives and Mauritania have considerably built up their fishery industry on the basis of the resources within their Exclusive Economic Zones. Maldives also has developed its tourist industry with some useful spillovers to agriculture in the opening of markets for some local food products. Forest resources in the case of Burma and, outside the agricultural sector, diamonds in the case of Botswana, provide other examples.

By necessity, policy actions during most of the 1980s have been largely dominated by short term economic issues and constraints. The resulting set of policies are not necessarily geared to or reflect the

particular needs of the agricultural or, in a still broader sense, rural sectors. Social and environmental issues and shortcomings have been inadequately addressed.

Perhaps the overall conclusion is that rather than repeating a rigid, resource-transfer based programme, based primarily on resource transfers which may not be forthcoming, a future programme for the LDCs should be a more flexible framework based on debt relief, stabilized export earnings and guaranteed levels of external assistance geared more to sectoral or general budgetary support than to specific projects with their heavy demands on scarce manpower for identification, appraisal and management. Within such a framework, where it is seen to be appropriate, comprehensive development strategies should be prepared, based on achieving a sustainable path of economic and social progress and identifying key constraints which are not necessarily financial ones. A balanced policy framework for a 'new' SNPA for the LDCs could be based on measures of debt relief or stabilization or structural adjustment programmes already underway. Outgoing relief measures aimed at the poorest and most heavily indebeted countries include the menu approach endorsed by the 1988 Toronot Summit which gives creditor governments three options to reschedule official debt on concessional terms: partial cancellation, extended maturities and concessional interest rates. This menu approach was adopted by the Paris Club at the end of 1988. In May 1988, the French and Belgian governments announced their intentions to write-off or reschedule the development and trade credits or public debt or many, including the poorest, African countries. These ongoing structural adjustment programmes would be suitably modified to allow a longer time frame for the process of economic adjustment than existing programmes can permit, to take account of undesirable social impacts, and to fully integrate agricultural, rural and environmental considerations and objectives.

Policy reforms need to be accompanied by technical changes. The main technical options open to LDC governments are land and irrigation development, increasing land and labour productivity with available technology and developing new technology to overcome production constraints that currently have no technical solutions. New technologies are not enough on their own. They would have to be backed by improved extension, input delivery and agricultural credit mechanisms plus adequate price and other producer incentives.

Productivity of marginal areas in the LDCs needs to be increased. Among the major requirements are cultivars characterized by drought resistance, an ability to thrive on highly saline, alkaline and acid soils and on soils that contain high levels of alumininum or which are deficient in phosphorus or nitrogen. Research on crops that require particular attention in arid and semi-arid areas will require long term donor assistance for both recurrent and capital expenditure, better identification of farmers' needs and close involvement of farmers in the development of research programmes as well as improved research-extention linkages. South-South cooperation among developing countries (TCDC/ECDC) can play an important role in this process.

Human Resources development will be a crucial input to further progress. Special attention must be paid to small farmers, women farmers and youth. Assistance must be given to strengthen farmers' organizations and to utilization of group approaches in conducting extension and training programmes, particularly for women. Rural development strategies can

realize their full potential only through the active involvement of rural people in conceptualizing and designing development programmes. They should also be associated with the design of administrative, social and economic institutions, including cooperatives and other voluntary forms of organization. Collaboration with non-governmental organizations, who work at the grass roots level, should be encouraged. Efforts should also cover social forestry and small-scale fisheries, including attention to the contribution of women in these sub-sectors.

Among the main environmental challenges faced by the LDCs during the 1990's will be the integration of their environment and development policies and strengthening their national technical capabilities to address environmental issues.

The restoration and management of degraded natural resources, including control of land degradation in arid and semi-arid regions, will need greater emphasis. The in situ conservation of biological diversity has recently emerged as a global issue in which existing mechanisms such as the International Undertaking on Plant Genetic Resources and the International Fund will play an increasingly important role.

Needless to say, those LDCs that unfortunately continue to be beset by wars and civil strife will require a special political focus to remove these key development constraints which divert their scarce financial and manpower resources.

Finally, it remains for the international community - donors, technical agencies and other developing countries - to assist the LDCs in maximizing internal and external resources available to them.

ANNEX TABLE 1. ANNUAL CHANGES IN TOTAL GDP, 1980-86, CONSTANT 1980 PRICES

	1980	1981	1982	1983	1984	1985	1986a/	1980-86
	..... %							
Kiribati	...	...	...	...	...	...	...	...
Cape Verde	...	...	...	...	...	...	...	...
Burma	8.2	6.6	5.3	4.2	5.4	3.9	3.4	5.3
Samoa	...	...	...	...	...	...	...	...
São Tomé & Princ.	...	...	...	...	...	...	...	...
Gambia	1.3	-1.3	11.3	12.6	-8.3	-8.6	7.0	2.0
Yemen Dem.	...	...	...	...	...	...	...	...
Laos	...	...	...	...	...	...	...	...
Yemen Arab Rep.	6.4	4.1	8.2	1.2	1.9	1.2	0.4	3.3
Uganda	-4.6	5.0	9.0	4.6	-7.5	-2.2	-2.1	0.3
Botswana	16.3	1.7	3.7	20.7	20.1	3.2	12.4	11.1
Togo	17.0	-4.2	-4.2	-4.1	1.1	2.8	4.4	1.8
Group I	**6.9**	**4.5**	**5.8**	**4.2**	**3.4**	**2.2**	**2.9**	**4.3**
Malawi	-0.7	-4.9	2.9	3.6	3.3	6.0	-0.3	1.4
Niger	7.5	1.3	-3.7	-2.5	-15.1	5.5	6.9	0.0
Vanuatu	...	...	...	...	...	...	...	...
Lesotho	-0.1	4.5	12.3	0.3	6.9	8.4	-0.2	4.6
Afghanistan	...	...	...	...	...	...	...	...
Burundi	4.2	14.2	-5.0	2.5	-0.8	5.8	3.6	3.5
Tanzania	4.1	-0.8	1.8	-2.6	2.5	3.4	3.4	1.7
Group II	**4.0**	**0.9**	**0.5**	**-1.2**	**-1.7**	**4.8**	**3.4**	**1.6**
Benin	5.5	7.5	7.1	-2.0	2.5	7.8	0.7	4.2
Guinea Bissau	-18.3	18.3	4.0	-3.6	4.3	4.2	-0.7	1.2
Mauritania	5.5	2.1	-3.6	5.3	-3.9	3.0	5.8	2.0
Comoros	...	...	...	...	...	...	...	...
Somalia	...	...	...	...	...	...	...	...
Maldives	...	...	...	...	...	...	...	...
Nepal	...	...	...	...	...	...	...	...
Burkina Faso	3.0	4.8	-0.4	-1.7	-0.6	9.2	2.1	2.3
Mali	-0.2	-3.6	5.2	-4.4	-0.5	-1.8	10.0	0.7
Bangladesh	1.3	6.1	1.4	3.5	4.2	3.8	4.0	3.5
Haiti	-25.6	-2.7	-3.6	0.4	0.7	1.4	-1.3	-4.4
Group III	**-1.3**	**4.5**	**1.4**	**1.9**	**2.8**	**3.8**	**3.8**	**2.4**
Sudan	3.6	1.5	10.0	0.4	-2.9	-10.2	8.7	1.6
Central African Rep.	-1.8	-1.3	0.7	-6.7	8.9	3.8	1.5	0.7
Rwanda	11.3	10.2	1.0	0.4	-6.8	7.4	3.3	3.9
Sierra Leone	3.2	3.8	7.9	-1.2	-0.7	0.7	-1.5	1.8
Guinea	...	...	...	...	...	...	...	...
Ethiopia	4.7	1.8	1.5	5.0	-2.4	-8.1	11.0	1.9
Chad	...	...	...	...	...	...	...	...
Mozambique	...	...	...	...	...	...	...	...
Group IV	**4.1**	**2.2**	**6.2**	**1.2**	**-2.3**	**-6.8**	**7.7**	**1.8**
Others								
Bhutan	...	...	...	...	...	...	...	...
Djibouti	...	...	...	...	...	...	...	...
Equatorial Guinea	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...
Total LDCs	**2.8**	**3.3**	**3.5**	**1.7**	**0.9**	**0.9**	**4.4**	**2.5**

a/ Preliminary.
Source: FAO.

ANNEX TABLE 2. ANNUAL CHANGES IN AGRICULTURAL GDP, 1980-1986, CONSTANT 1980 PRICES

	1980	1981	1982	1983	1984	1985	1986a/	1980-86
	..... %							
Kiribati	...	...	...	...	...	...	...	...
Cape Verde	...	...	...	...	...	...	...	...
Burma	10.3	7.7	6.0	4.9	4.4	2.5	3.0	5.6
Samoa	...	...	...	...	...	...	...	...
São Tomé & Princ.	...	...	...	...	...	...	...	...
Gambia	-13.9	-11.3	23.5	21.4	-22.6	-5.6	16.0	1.1
Yemen Dem.	...	...	...	...	...	...	...	...
Laos	...	...	...	...	...	...	...	...
Yemen Arab Rep.	4.3	8.2	4.6	-11.3	-0.1	8.5	0.0	2.0
Uganda	-6.3	6.8	10.1	5.1	-10.6	-3.6	-4.9	-0.5
Botswana	-3.8	-10.0	-4.3	-16.3	-15.3	-5.7	0.0	-7.9
Togo	16.6	-1.5	-8.8	0.9	12.9	1.9	3.8	3.7
Group I	**4.8**	**6.4**	**5.9**	**2.2**	**-0.2**	**1.7**	**1.1**	**3.1**
Malawi	-6.6	-8.2	6.5	4.3	5.6	0.8	-0.1	0.3
Niger	5.1	-0.8	-2.6	11.4	-10.0	14.8	7.8	3.7
Vanuatu	...	...	...	...	...	...	...	...
Lesotho	-25.5	-2.4	-12.6	11.4	7.7	0.0	0.0	-3.1
Afghanistan	...	...	...	...	...	...	...	...
Burundi	2.0	17.1	-9.7	3.9	-5.2	8.0	3.3	2.8
Tanzania	3.9	1.0	1.3	-0.4	-1.4	3.5	5.0	1.8
Group II	**2.0**	**1.6**	**-1.2**	**3.8**	**-3.4**	**6.6**	**4.9**	**2.1**
Benin	3.1	-7.1	1.9	1.0	1.5	13.5	6.0	2.8
Guinea Bissau	-37.5	28.4	5.7	-2.0	3.2	6.7	4.2	1.2
Mauritania	11.5	8.9	1.7	15.1	-18.4	2.5	9.2	4.3
Comoros	...	...	...	...	...	...	...	...
Somalia	...	...	...	...	...	...	...	...
Maldives	...	...	...	...	...	...	...	...
Nepal	-4.8	10.4	5.6	-1.1	9.5	2.4	4.7	3.8
Burkina Faso	-3.3	-1.7	7.1	-10.5	-8.3	-4.6	17.3	-0.6
Mali	0.2	5.3	0.9	4.6	1.6	0.9	3.4	2.4
Bangladesh	-5.9	8.1	-1.9	0.5	-1.7	17.0	0.0	2.3
Haiti	...	...	...	...	...	...	...	...
Group III	**-4.9**	**6.7**	**0.2**	**-0.3**	**-1.0**	**12.0**	**2.4**	**2.2**
Sudan	-6.5	-4.4	32.1	-7.6	-25	-19.0	19.6	1.7
Central African Rep.	-1.5	-1.7	4.8	-4.1	9.3	3.8	1.5	1.7
Rwanda	-1.6	-6.2	14.3	-5.5	-9.4	11.1	6.0	1.2
Sierra Leone	-2.5	0.8	5.2	-4.1	2.1	3.1	-1.7	0.4
Guinea	...	...	...	...	...	...	...	...
Ethiopia	4.8	2.5	1.3	4.7	-9.9	-16.0	3.5	-1.7
Chad	...	...	...	...	...	...	...	...
Mozambique	...	...	...	...	...	...	...	...
Group IV	**-1.9**	**-1.8**	**15.4**	**-3.3**	**-4.7**	**-12.9**	**10.5**	**0.2**
Others								
Bhutan	...	...	...	...	...	...	...	...
Djibouti	...	...	...	...	...	...	...	...
Equatorial Guinea	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...
Total LDCs	**-1.2**	**3.9**	**4.4**	**0.2**	**-2.0**	**3.4**	**4.0**	**1.8**

a/ Preliminary.
Source: FAO.

ANNEX TABLE 3. LDCs, EXPORTS OF GOODS AND SERVICES, 1980-86

	1980	1981	1982	1983	1984	1985	1986
	.....			00 000 US$		.....	
Kiribati	...	...	...	...	...	...	...
Cape Verde	...	...	...	...	...	...	...
Burma	5 557	5 822	4 673	4 598	3 998	4 237	4 452
Samoa	225	183	219	270	273	270	245
São Tomé & Princ.	225	111	116	108	144	94	...
Gambia	662	614	814	809	944	787	940
Yemen Dem.	1 799	1 898	1 920	1 785	1 606	2 380	2 230
Laos	...	...	...	...	...	...	...
Yemen Arab Rep.	3 517	3 639	3 389	3 039	2 512	2 253	2 209
Uganda	3 307	2 744	3 820	3 844	4 479	3 680	4 394
Botswana	7 476	6 043	6 425	8 314	8 728	8 863	10 263
Togo	5 705	4 903	4 497	3 604	3 849	3 467	3 977
Group I	**28 473**	**25 957**	**25 873**	**26 371**	**26 533**	**26 031**	**28 710**
Malawi	3 344	3 304	2 677	2 552	3 406	2 819	2 698
Niger	6 436	5 399	4 264	4 002	3 298	2 818	3 711
Vanuatu	...	...	533	625	839	834	539
Lesotho	3 600	3 873	4 335	4 681	3 828	3 013	3 271
Afghanistan	...	...	...	...	...	...	...
Burundi	831	936	1 105	1 043	1 204	1 286	1 635
Tanzania	7 109	9 142	5 303	4 867	4 957	3 937	4 576
Group II	**21 320**	**22 654**	**18 217**	**17 770**	**17 532**	**14 707**	**16 430**
Benin	2 224	1 839	1 436	1 934	2 344	2 439	...
Guinea Bissau	...	...	174	149	250	131	161
Mauritania	2 698	3 388	3 058	3 547	3 303	4 125	4 549
Comoros	140	183	233	233	108	206	287
Somalia	2 043	2 554	2 562	1 771	1 067	1 276	1 620
Maldives	652	745	770	770	845	910	...
Nepal	2 405	3 069	2 928	2 651	2 812	3 074	3 313
Burkina Faso	2 252	2 092	1 837	1 565	1 822	1 587	2 320
Mali	2 626	2 006	1 901	2 088	2 328	2 278	2 479
Bangladesh	9 976	10 900	9 732	10 138	10 998	12 511	10 790
Haiti	3 087	2 453	2 781	2 945	3 233	3 426	3 065
Group III	**25 016**	**26 776**	**24 631**	**40 846**	**25 877**	**28 537**	**25 519**
Sudan	8 250	7 630	6 820	8 310	9 520	8 150	7 220
Central African Rep.	2 395	1 958	1 671	1 590	1 359	1 508	1 915
Rwanda	1 823	1 759	1 578	1 607	1 825	1 701	2 361
Sierra Leone	2 781	2 134	1 532	1 427	1 742	1 604	1 740
Guinea	...	...	...	...	...	...	...
Ethiopia	5 869	5 520	5 357	5 816	6 267	5 713	8 210
Chad	713	875	619	1 068	1 458	995	...
Mozambique	...	...	...	...	...	...	...
Group IV	**24 918**	**22 329**	**20 358**	**22 763**	**25 404**	**23 097**	**24 511**
Others							
Bhutan	...	...	...	...	...	...	...
Djibouti	...	...	...	...	...	...	...
Equatorial Guinea	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...
Total LDCs	**99 727**	**97 716**	**89 079**	**107 750**	**95 346**	**92 372**	**95 170**

Source: FAO.

ANNEX TABLE 4. LDCs, AGRICULTURAL, FISHERY AND FORESTRY EXPORTS, 1980-86

	1980	1981	1982	1983	1984	1985	1986
	..... '000 US$						
Kiribati*	2 759.0	3 853.0	2 161.0	3 321.7	7 703.0	4 046.0	1 218.0
Cape Verde	3 264.0	2 513.0	3 604.0	3 077.0	2 288.3	3 061.0	3 943.8
Burma	364 208.0	410 725.0	321 011.0	377 186.0	304 040.0	278 429.0	301 996.0
Samoa	15 904.4	9 746.7	12 011.0	15 691.0	19 317.0	13 357.0	9 521.0
São Tomé & Princ.	18 520.0	13 012.0	12 122.0	11 115.0	9 875.0	7 273.0	5 948.0
Gambia	32 729.0	21 003.0	17 552.0	26 926.0	29 589.0	19 258.0	13 275.0
Yemen Dem.	35 197.0	16 085.0	18 791.0	27 356.0	21 979.0	27 216.0	25 244.0
Laos*	12 306.0	5 516.0	10 670.0	11 071.0	14 334.0	13 133.0	16 851.0
Yemen Arab Rep.	19 539.0	14 027.0	15 905.0	13 510.0	11 920.0	10 280.0	13 067.0
Uganda	344 300.0	244 330.0	353 382.0	365 070.0	413 895.0	433 586.0	406 350.0
Botswana	46 212.0	85 213.0	83 835.0	82 706.0	70 818.0	78 294.0	58 191.0
Togo	77 035.0	66 817.0	55 972.0	51 520.0	76 944.0	79 282.0	103 562.0
Group I	946 908.4	883 471.7	894 155.0	974 157.0	960 663.3	950 036.0	941 097.8
Malawi	253 479.0	240 525.0	223 096.0	232 824.0	297 488.0	232 514.0	229 745.0
Niger	85 568.0	87 074.0	81 116.0	52 165.0	86 568.9	62 883.0	76 623.0
Vanuatu	28 748.0	25 901.0	18 744.0	26 289.0	38 854.0	25 311.0	16 037.0
Lesotho	15 276.0	12 967.0	13 570.0	19 830.0	22 408.0	16 731.0	13 345.0
Afghanistan*	314 607.0	276 153.0	226 927.0	255 244.0	379 842.0	214 812.0	226 244.0
Burundi	64 052.0	72 284.0	86 264.0	79 714.0	95 367.0	103 713.0	159 287.0
Tanzania	409 715.0	443 390.0	352 115.0	287 798.0	278 972.0	254 053.0	343 544.0
Group II	856 838.0	882 141.0	774 905.0	698 620.0	819 651.9	695 205	838 581.0
Benin	54 659.0	22 568.0	20 099.0	31 042.5	79 687.0	81 645.0	69 913.0
Guinea Bissau	9 386.0	13 527.0	8 258.0	6 817.0	13 449.7	9 441.3	8 640.7
Mauritania	46 941.0	77 208.0	68 666.0	104 325.0	131 934.2	162 621.6	208 335.6
Comoros	7 283.0	14 569.0	17 550.0	15 373.0	5 758.0	13 929.0	20 583.0
Somalia	125 275.0	152 681.0	242 606.0	94 607.0	51 952.0	106 053.0	86 405.0
Maldives	6 889.0	7 031.0	6 186.0	6 615.0	10 433.0	15 490.0	16 163.0
Nepal	50 704.0	75 104.0	79 732.0	64 944.0	75 579.0	82 270.0	77 597.0
Burkina Faso	79 609.4	63 063.6	47 767.0	52 772.0	72 434.4	52 454.0	50 997.6
Mali	194 537.0	206 059.0	216 393.0	171 955.0	222 273.0	188 102.0	151 000.0
Bangladesh	235 289.0	212 481.0	217 887.0	253 015.0	294 034.0	322 800.3	311 637.2
Haiti	112 915.0	47 087.0	51 503.0	71 571.0	69 221.0	68 030.7	70 560.7
Group III	810 572.4	844 291.6	925 144.0	801 465.5	957 531.3	1 034 806.2	1 001 272.1
Sudan	553 225.0	476 263.0	496 744.0	506 687.0	591 162.0	375 751.0	311 315.0
Central African Rep.	98 584.0	86 960.0	79 058.0	75 173.0	66 689.0	83 269.4	79 436.4
Rwanda	65 769.0	71 614.0	74 426.0	64 287.0	70 188.0	75 679.0	165 908.0
Sierra Leone	61 004.0	40 066.0	41 948.0	32 551.0	37 068.8	60 097.2	56 466.4
Guinea	33 105.0	29 180.0	30 412.0	34 393.0	22 685.0	18 661.0	30 610.0
Ethiopia	391 471.0	343 144.0	369 351.0	362 442.0	380 144.0	305 590.0	449 600.0
Chad	114 680.0	125 150.0	120 280.0	116 164.0	118 537.0	116 947.0	124 280.0
Mozambique*	186 134.0	185 802.0	154 756.0	98 522.0	80 299.0	72 475.0	76 784.0
Group IV	1 430 753.0	1 219 464.0	1 263 722.0	1 263 268.0	1 424 909.0	1 104 025.3	1 288 176.5
Others							
Bhutan*	5 251.0	5 401.0	5 531.0	5 501.0	5 604.0	5 486.0	5 536.0
Djibouti	3 400.0	2 760.0	2 880.0	3 700.0	3 970.0	4 650.0	3 900.0
Equatorial Guinea	14 161.0	20 285.0	22 315.0	22 789.0	25 344.0	26 797.0	34 266.0
Tuvalu*	...	...	...	...	...	...	...
Total LDCs	4 062 632.8	3 852 413.3	3 883 121.0	3 763 999.5	4 192 069.5	3 815 519.5	4 107 293.4

* Not included in totals.

Source: FAO.

ANNEX TABLE 5. LDCs' SHARE OF MAIN TRADING PARTNERS IN LDC TOTAL MERCHANDISE EXPORTS AND IMPORTS 1970, 1980 AND 1987

	Exports to						Imports from					
	1970		1980		1987		1970		1980		1987	
		%		%		%		%		%		%
Afghanistan	USSR	38.4	USSR	59.3	USSR	66.1a/	USSR	34.2	USSR	52.7	USSR	38.9a/
	UK	16.1	India	7.8	India	6.9a/	Japan	17.4	Japan	17.8	Japan	13.1a/
	India	15.8	Pakistan	7.4	Germany FR	4.5a/	India	11.6	India	3.7	Korea Rep.	6.7
		70.3		74.5		77.5		63.2		74.2		58.7
Bangladesh	(1972)						(1972)					
	USA	16.9	USA	9.7	USA	29.9	USA	42.5a/	USA	13.8	USA	6.9
	UK	13.4	Pakistan	7.3	Italy	7.6	India	26.4a/	Japan	11.3	Samoa	6.0
	Mozambique	7.5	Iran	6.0	Japan	5.8	Japan	13.7a/	Saudi Arabia	8.6	Canada	5.1
		37.8		23.0		43.3		82.6		33.7		18.0
Benin	France	39.4	Netherlands	28.3	Portugal	21.6a/	France	42.2	France	22.9	France	19.1a/
	Japan	9.7	France	15.3	USA	12.6a/	Netherlands	5.6	UK	10.5	Thailand	12.3a/
	Germany FR	8.9	Japan	10.3	Germany FR	10.5a/	USA	5.4	India	7.7	Korea Rep.	6.7
		58.0		53.9		44.9		53.2		41.1		37.7
Bhutan					(1985)						(1985)	
	n.a.		n.a.		India	99.3	n.a.		n.a.		India	89.5
					-	-					-	-
					-	-					-	-
					Total	99.3						89.5
Botswana	(1976)				(1985)		(1978)				(1985)	
	USA	27.6	USA	20.9	USA	7.1	S. Africa	84.7	S. Africa	87.0	S. Africa	75.8
	S. Africa	13.6	S. Africa	6.6	S. Africa	5.8	USA	2.0	UK	1.4	UK	4.6
	UK	4.7	UK	2.1	UK	5.1	UK	1.7	UK	1.4	USA	2.8
		45.9		29.6		18.1		88.4		91.3		83.2
Burkina Faso	(1976)						(1978)					
	Côte d'Ivoire	43.3	Côte d'Ivoire	32.9	France	39.8a/	France	40.6	France	39.3	France	32.2
	France	15.6	France	18.0	Tunisia	3.6a/	Japan	12.3	Côte d'Ivoire	18.6	Côte d'Ivoire	25.9a/
	Germany FR	10.7	Japan	7.6	Spain	3.3	Cote d'Ivoire	11.3	USA	9.0	Italy	5.1a/
		69.6		57.9		46.9		64.2		67.1		63.2
Burma	Sri Lanka	14.2	Singapore	14.3	China	16.6a/	Japan	26.2	Japan	43.7	Japan	28.8a/
	Singapore	9.0	Japan	9.9	Singapore	9.0a/	India	13.6	UK	8.8	China	11.1a/
	India	8.0	Indonesia	9.4	Thailand	6.5a/	UK	9.5	Germany FR	7.4	Singapore	7.6
		31.2		33.6		32.1		49.3		59.9		47.5
Burundi	USA	16.0	USA	42.2	Germany FR	31.1a/	Belgium	18.8	Iran	19.7	Belgium-Luxembourg	17.7a/
	Belgium	9.5	Germany FR	6.0	Belgium-Lux.	20.4a/	Japan	13.0	Belgium-Lux.	15.2	Germany FR	17.6a/
	Rwanda	2.1	France	4.4	Netherlands	5.7a/	Germany FR	9.9	France	7.8	Iran	11.4a/
		27.6		52.6		57.2		41.7		42.7		46.7
Cape Verde	(1976)						(1976)					
	Portugal	66.7	Portugal	52.6	Portugal	31.5a/	Portugal	58.7	Portugal	46.7	Portugal	33.1a/
	Angola	13.3	Spain	18.4	Angola	21.3a/	Netherlands	5.0	USA	5.9	Netherlands	12.1a/
	UK	6.7	Italy	10.5	Belgium-Lux.	14.6a/	UK	3.0	Netherlands	5.1	Hungary	11.4a/
		86.7		81.5		67.4		66.7		57.7		56.6
Central Afr. Rep.	France	46.5	France	51.8	Belgium-Lux.	42.3a/	France	55.7	France	60.1	France	52.4a/
	Israel	13.9	Belgium-Lux.	14.6	France	16.8a/	Germany FR	7.7	Japan	7.3	Germany FR	6.9a/
	Belgium	11.3	Israel	8.1	Spain	7.5a/	USA	5.6	Netherlands	3.6	Japan	3.4a/
		71.7		74.5		66.6		69.0		71.0		62.7
Chad	France	72.8	Portugal	11.4a/	Portugal	9.5a/	France	38.9	Cameroon	10.7a/	France	25.6a/
	Congo	4.5	France	8.8a/	France	9.3a/	Nigeria	8.9	France	10.6a/	Cameroon	11.9a/
	Nigeria	3.1	Germany FR	7.8a/	Germany FR	8.1a/	Congo	8.5	Libya	3.3a/	Italy	5.3a/
		80.4		28.0		26.9		56.3		24.6		42.8
Comoros	(1975)						(1975)					
	France	55.5	France	39.8a/	France	50.0a/	France	56.8	France	45.1a/	France	55.4a/
	USA	25.8	USA	31.6a/	USA	30.4a/	Madagascar	15.7	Kenya	12.9a/	Botswana	6.5a/
	Germany FR	6.4	Germany FR	12.0a/	Germany FR	10.1	Pakistan	9.6	Reunion	10.2a/	Bahrain	6.4a/
		87.7		83.4		90.5		82.1		68.2		68.3
Djibouti	(1976)						(1976)					
	Yemen Arab R.	54.3a/	Somalia	30.6a/	Yemen Arab R.	34.9a/	Ethiopia	23.1a/	France	21.2a/	France	19.9a/
	Saudi Arabia	18.5a/	Yemen PDR	18.2a/	Yemen PDR	26.4a/	France	22.5a/	Ethiopia	20.4a/	Bahrain	17.1a/
	Yemen PDR	16.6a/	Yemen Arab R.	18.0a/	Somalia	10.8a/	Japan	12.9a/	Japan	10.0a/	Japan	8.4a/
		89.4		66.8		72.1		58.5		51.6		45.4
Equatorial Guinea	(1971)						(1971)					
	Spain	73.6a/	Netherlands	55.6a/	Spain	43.9a/	Spain	65.5a/	Spain	48.6a/	Spain	33.6a/
	Senegal	13.7a/	Germany FR	20.6a/	Germany	19.0a/	Spain	65.5a/	France	5.2a/	Italy	16.0a/
	USA	10.1a/	Spain	12.5a/	Italy	12.3a/	USA	9.6a/	Tobago	3.8a/	France	13.5a/
		97.6		86.7		75.2		86.8		93.8		63.4
Ethiopia	Sri	48.6	USA	18.2	USA	17.1a/	Italy	16.9	USSR	19.3	Italy	16.1a/
	Germany FR	7.3	Djibouti	11.4	Germany FR	6.9	Japan	14.8	Italy	10.8	USSR	15.7a/
	Italy	5.2	Italy	10.1	Japan	9.6a/	Germany FR	13.7	Germany FR	9.7	USA	11.8a/
		61.1		39.7		43.6		45.4		40.1		43.6

ANNEX TABLE 5. LDCs' SHARE OF MAIN TRADING PARTNERS IN LDC TOTAL MERCHANDISE EXPORTS AND IMPORTS 1970, 1980 AND 1987 (cont.)

	Exports to						Imports from					
	1970		1980		1987		1970		1980		1987	
	%		%		%		%		%		%	
Gambia	UK	48.3	Netherlands	25.5	Ghana	39.1a/	UK	30.0	UK	26.7	UK	19.6a/
	France	20.4	UK	16.1	Belgium-Lux.	20.2a/	Japan	16.4	China	16.2	Italy	9.5a/
	Netherlands	16.7	Guinea	10.1	Japan	9.9a/	China	7.9	France	7.3	Germany FR	7.8a/
		85.4		51.7		69.2a/		54.3		50.2		36.9
Guinea	Norway	36.4	USA	26.8a/	USA	21.1a/	France	37.4	France	29.6a/	France	35.0
	Germany FR	18.4	Spain	15.7a/	Spain	11.7a/	Italy	14.4	UK	18.8a/	USA	9.3
	USA	16.0	Germany FR	14.7a/	Germany FR	10.7a/	USA	13.3	USA	10.3a/	Belgium-Lux	8.8
		70.8		57.2		43.5		65.1		58.7		53.1
Guinea Bissau	Portugal	84.4	Portugal	27.1	Portugal	42.2a/	Portugal	55.3	Portugal	31.3	Portugal	20.1
	Germany FR	3.1	Spain	25.3	France	17.2a/	Japan	6.2	France	11.4	Italy	14.1
	Netherlands	3.1	Switzerland	23.1	Belgium-Lux.	8.7a/	UK	5.9	Sweden	8.4	Netherlands	9.6
		90.6		75.5		68.1		67.4		51.1		43.8
Haiti	USA	60.0	USA	56.6	USA	84.0	USA	46.4	USA	53.3	USA	64.0a/
	Belgium	11.6	France	13.2	Italy	3.6	Japan	9.1	Dutch Antilles	10.8	Dutch Antilles	5.4a/
	France	7.0	Italy	12.7	France	2.9	France	5.1	Japan	5.5	Japan	5.3a/
		78.6		82.5		90.5		60.6		69.6		74.7
Kiribati					(1984)						(1984)	
	n.a.		Australia)		Australia)		n.a.		Australia)		Australia)	
			New Zealand)	n.a.	New Zealand)	n.a.			New Zealand)	n.a.	New Zealand)	n.a.
			UK)		UK)				UK)		UK)	
			n.a.		n.a.				n.a.		n.a.	
Laos	Malaysia	35.3	Saudi Arabia	29.5a/	China	40.8a/	USA	24.1	Thailand	39.7a/	Thailand	45.9a/
	Thailand	27.1	Japan	23.0a/	Thailand	22.7a/	Thailand	16.2	Singapore	16.6a/	Japan	19.2a/
	Canada	20.8	Hong Kong	15.2a/	France	8.7a/	Indonesia	15.1	Japan	11.2a/	UK	3.5a/
		83.2		67.7		72.2		55.4		67.5		68.4
Lesotho			(1979)						(1979)			
	n.a.		South Africa	34.2	South Africa	n.a.			South Africa	97.4	South Africa	n.a.
			EEC	9.4			n.a.		EEC	1.8		
			-	-					-	-		
		43.6	n.a.	43.6				99.2	n.a.			
Malawi	UK	36.9	UK	28.1	UK	21.2	UK	20.6	South Africa	37.3	South Africa	34.7
	Rhodesia	6.3	USA	16.4	Germany FR	19.3	Rhodesia	21.7	UK	18.1	UK	13.8
	Netherlands	3.7	Netherlands	8.2	Japan	6.5	South Africa	12.6	Japan	7.1	Germany FR	9.0
		49.6		52.7		47.0		60.9		62.5		57.5
Maldives	(1974)						(1974)					
	Sri Lanka	69.4a/	Japan	30.4a/	Thailand	54.4a/	Pakistan	21.0a/	Japan	21.4a/	Singapore	48.9a/
	Japan	19.4a/	Switzerland	22.8a/	Sri Lanka	18.1a/	UK	19.4a/	India	15.9a/	Japan	14.4a/
	Colombia	5.6a/	Sri Lanka	21.5a/	Germany FR	9.3a/	Sri Lanka	16.1a/	Burma	14.9a/	Hong Kong	7.0a/
		94.4		74.7		81.8		56.5		52.2		70.3
Mali	Côte d'Ivoire	32.2	France	23.9a/	France	11.2a/	France	38.4	France	33.0a/	France	27.9a/
	France	18.9	UK	16.1a/	UK	9.6a/	USSR	11.3	Côte d'Ivoire	27.8a/	Côte d'Ivoire	24.6a/
	Senegal	15.1	Belgium-Lux.	17.0a/	Morocco	7.6a/	Côte d'Ivoire	9.6	Senegal	6.7a/	Germany FR	8.8a/
		66.2		57.0		28.4		59.3		67.5		61.3
Mauritania	France	39.4	France	29.4a/	Japan	31.3	France	33.9	France	34.5a/	France	34.5
	UK	16.3	Italy	19.7a/	Italy	14.4	UK	6.7	Senegal	9.8a/	Algeria	15.3
	Italy	14.4	Japan	11.3a/	France	12.5	Senegal	6.0	Spain	9.6a/	Spain	12.1
		50.1		60.4		58.2		46.6		53.9		61.9
Mozambique	Portugal	38.3	USA	21.4a/	Singaore	12.9a/	Portugal	27.4	Brazil	11.6a/	Italy	14.1a/
	South Africa	10.3	Kenya	9.7a/	USA	11.6a/	South Africa	15.3	USA	11.2a/	Thailand	7.8a/
	USA	9.3	Singapore	9.0a/	Philippines	11.5a/	USA	9.7	France	8.2a/	USA	7.7a/
		57.9		40.1		36.0		52.4		31.0		29.6
Nepal	India	62.3a/	India	30.1a/	India	29.0a/	India	74.7a/	India	47.6a/	India	22.4a/
	Belgium	11.6a/	Japan	11.9a/	Germany FR	23.1a/	Japan	10.0a/	Japan	19.5a/	Japan	17.8a/
	USA	9.7a/	USA	9.2a/	USA	20.5a/	UK	8.3a/	USA	5.7a/	USA	12.4a/
		83.6		51.2		72.6		93.0		72.8		52.6
Niger	France	46.7	France	40.4	France	82.2a/	France	45.8	France	37.5	France	34.3a/
	Nigeria	19.8	Japan	15.9	UK	4.2a/	Germany FR	7.8	Nigeria	11.2	Nigeria	10.9a/
	Italy	14.9	Nigeria	11.6	Japan	1.7a/	Senegal	5.4	Italy	7.4	Côte d'Ivoire	8.4a/
		81.4		67.9		88.1		59.0		56.1		53.6
Rwanda	USA	59.9	Kenya	28.4	Germany FR	50.6a/	Belgium	19.7	Belgium-Lux.	15.8	Japan	13.9a/
	Belgium	19.8	Belgium-Lux.	9.2	USA	8.4a/	Japan	13.5	Japan	12.1	Japan	13.9a/
	Uganda	8.9	Italy	2.4	Netherlands	8.4a/	Germany FR	8.7	Kenya	10.7	France	13.1a/
		88.6		90.0		67.4		41.9		38.6		49.3
Sao Tome & Principe	(1979)						(1979)					
	Belgium	19.8	Belgium-Lux.	9.2	USA	8.4a/	Japan	13.5	Japan	12.1	Japan	13.9a/
	Uganda	8.9	Italy	2.4	Netherlands	8.4a/	Germany FR	8.7	Kenya	10.7	France	13.1a/
		88.6		90.0		67.4		41.9		38.6		49.3

ANNEX TABLE 5. LDCs, SHARE OF MAIN TRADING PARTNERS IN LDC TOTAL MERCHANDISE EXPORTS AND IMPORTS 1970, 1980 AND 1987 (cont.)

	Exports to						Imports from					
	1970		1980		1987		1970		1980		1987	
		%		%		%		%		%		%
Sierra Leone	UK	71.3	UK	40.8	Belgium-Lux	22.5a/	UK	28.8	UK	27.8a/	UK	15.1a/
	Netherlands	5.5	USA	11.3	Germany FR	12.2a/	Japan	9.1	Japan	11.2a/	USA	15.4a/
	USA	4.0	Netherlands	7.8	France	7.5a/	USA	8.5	Germany FR	9.1a/	Germany FR	11.6a/
		81.8		59.9		42.2		46.4		48.1		42.5
Somalia	Saudi Arabia	53.4	Saudi Arabia	69.9	Saudi Arabia	45.1	Italy	29.5	Italy	36.6	Italy	35.1a/
	Italy	25.7	Italy	12.9	Italy	27.7a/	Germany FR	9.1	USA	9.2	USA	10.5a/
	Yemen PDR	10.3	United Arab E.	5.4	Yemen Arab R.	5.4a/	USA	7.9	UK	7.9	Germany FR	8.5a/
		89.4		88.2		78.2		46.5		51.7		54.7
Sudan	USSR	15.7	Saudi Arabia	21.2	Egypt	22.2a/	UK	20.1	Saudi Arabia	14.0	USA	12.1a/
	India	10.8	Italy	12.5	Italy	9.0a/	India	13.3	France	9.1	Saudi Arabia	10.5a/
	Italy	10.4	China	9.2	Thailand	7.1a/	USSR	8.6	Germany FR	8.3	UK	9.8a/
		36.9		42.9		38.4		42.0		31.4		32.4
Tanzania	UK	20.0	UK	15.3	Germany FR	19.3a/	UK	18.1	UK	16.3	UK	14.3a/
	USA	8.7	Germany FR	14.4	UK	11.6a/	Kenya	13.0	Germany FR	9.9	Japan	8.8a/
	Hong Kong	6.8	Netherlands	5.4	Netherlands	10.4a/	Germany FR	8.0	Japan	6.8	Italy	7.4a/
		35.5		35.1		41.3		39.1		33.0		30.5
Togo	France	28.0	Netherlands	20.2	France	11.2a/	France	28.4	France	25.1	France	29.9a/
	Netherlands	25.7	France	15.3	USA	10.1a/	UK	13.0	Nigeria	15.9	Netherlands	8.6a/
	Germany FR	19.9	Nigeria	10.1	Netherlands	7.6a/	Germany FR	7.8	Netherlands	9.0	Germany	7.7a/
		73.6		45.6		28.9		49.2		50.0		46.2
Tuvalu			(1982)						(1982)			
			Fiji	47.5					Fiji	47.5		
	n.a.		Australia	39.7	n.a.		n.a.		Australia	39.7	n.a.	
			New Zealand	5.3					New Zealand	5.3		
				92.5						92.5		
Uganda	USA	16.2	USA	26.0a/	USA	25.1a/	Kenya	27.2	Kenya	40.8a/	Kenya	24.7a/
	UK	18.0	UK	14.1a/	UK	17.6a/	UK	22.7	UK	17.8a/	UK	13.6a/
	Kenya	10.1	France	12.8a/	France	11.3a/	Japan	8.1	Germany FR	6.2a/	Italy	12.7a/
		46.3		52.9		54.2		58.0		64.8		51.0
Vanuatu	(1974)						(1974)					
	France	58.6	USA	33.7	Germany FR	22.6a/	Australia	33.1	Australia	25.2	Spain	20.8a/
	USA	22.4	France	23.4	Japan	10.3a/	France	15.3	Fiji	9.1	Australia	19.8a/
	Japan	13.4	Italy	8.7	Fr Polynesia	6.3a/	Japan	14.9	France	8.8	Japan	12.3a/
		94.4		65.8		39.2		63.3		43.1		52.9
Western Samoa	New Zealand	48.9	Netherlands	30.6	Netherlands	38.1	New Zealand	32.1	New Zealand	32.2	New Zealand	33.2a/
	Netherlands	17.8	New Zealand	25.6	Australia	20.9	Australia	16.4	Australia	20.3	Fiji	15.5a/
	Germany FR	13.3	Germany	10.6	USA	17.0	USA	14.2	Singapore	11.0	Australia	14.5a/
		80.0		66.8		76.0		62.7		63.5		63.2
Yemen Arab Rep.	Yemn PDR	51.9	Yemen PDR	42.5	Yemen PDR	34.1a/	Yemen PDR	23.4	Yemen PDR	19.3	USA	9.9a/
	Japan	11.8	France	11.5	Saudi Arabia	23.4a/	France	11.9	Japan	12.7	Yemen PDR	8.7a/
	Switzerland	13.2	China	9.3	Italy	11.7a/	UK	8.5	France	7.9	UK	7.7a/
		76.9		63.3		69.2		43.8		39.9		26.3
Yemen PDR	UK	24.6	United Arab E.	33.8a/	Yemen Arab R.	30.4a/	Iran	18.2	United Arab E.	29.1a/	United Arab E.	10.8a/
	Japan	14.4	India	22.9a/	Sudan	21.7	Kuwait	13.3	Egypt	16.5a/	UK	8.5a/
	Thailand	8.6	Italy	16.7a/	Japan	13.7	Japan	10.5	Kuwait	9.5a/	Japan	5.3a/
		47.6		73.4		65.8		42.0		55.1		24.6

a/ Incomplete data.

Source: IMF, Direction of Trade Statistics, Washington D.C., USA.
Europe Publications Limited, The Europa Yearbook, Kent, UK.

ANNEX TABLE 6. LDCs, MAIN AGRICULTURAL EXPORT COMMODITIES AND SHARE ON TOTAL AGRICULTURAL EXPORTS, 1961, 1970, 1980 AND 1986

Country	1961	(%)	1970	(%)	1980	(%)	1986	(%)
Afghanistan	Fur skins	24.1	Raisins	18.2	Raisins	41.4	Raisins	31.1
	Cotton lint	22.2	Fur skins	16.8	Fur skins	13.8	Fur skins	21.5
	Wool, scoured	16.3	Cotton lint	13.8	Cotton lint	12.5	Fruit	12.0
	Raisins	12.0	Wool, scoured	12.2	Fruit	6.6	Grapes	7.5
		74.6		61.0		74.3		72.1
Bangladesh	Jute	86.5	Jute	73.2	Jute	58.8	Jute	45.6
	Tea	11.0	Tea	25.8	Shellfish	16.9	Shellfish	26.2
	Fish	3.4	Shellfish	1.0	Tea	15.1	Tea	12.0
		98.9		100.0		90.6		83.8
Benin	Palm oil	15.7	Palm kernel oil	20.2	Cocoa beans	26.0	Cocoa beans	44.7
	Coffee, green	8.3	Cocoa beans	19.9	Cotton lint	21.3	Cotton lint	39.5
	Cotton lint	5.5	Cotton lint	18.6	Coffee, green	16.0	Coffee, green	6.1
		29.5		58.7		63.3		90.3
Bhutan	Game meat	18.1	Beef veal	41.2	Beef veal	74.2	Beef veal	74.3
	Beef veal	15.1	Game meat	15.8	Hides cattle	6.4	Meat prepared	8.5
	Sorghum	15.1	-		Animal oils	5.6	Hides cattle	7.0
		48.3		57.0		86.2		89.8
Burkina Faso	Cattle	57.8	Cotton lint	23.1	Cotton lint	49.8	Cotton lint	40.7
	Sheep	16.6	Cattle	15.4	Cattle	13.1	Karite nuts	20.5
	Karite nuts	2.2	Karite nuts	9.4	Karite nuts	9.1	Cattle	11.6
		76.6		48.0		72.0		72.8
Burma	Milled paddy rice	70.1	Milled paddy rice	54.3	Milled paddy rice	50.1	Sawn logs + veneer	4.1
	Sawnwood	5.2	Sawnwood	14.0	Sawnwood	18.9	Milled paddy rice	24.5
	Sawnlogs + veneer	4.1	Sawnlogs + veneer	10.4	Sawnlogs + veneer	11.6	Beans, dry	19.0
		79.3		78.7		80.6		72.1
Burundi	Coffee, green	79.2	Coffee , green	86.6	Coffee, green	91.6	Coffee, green	94.1
	Cotton lint	12.3	Cotton lint	8.9	Organic material	3.1	Tea	2.8
	Hide D cattle	1.6	Hide D cattle	1.7	Tea	2.4	Organic material	1.3
		93.1		97.2		97.1		98.2
Central Afr. Rep.	Cotton lint	44.3	Coffee, green	31.4	Coffee, green	35.5	Coffee, green	36.0
	Coffee, green	28.2	Cotton lint	31.1	Sawnlogs + veneer	30.8	Sawnlogs + veneer	17.7
	Meat	14.4	Sawnlogs + veneer	12.2	Sawnwood	10.7	Cotton lint	16.4
		86.9		74.7		77.0		72.1
Chad	Cotton lint	55.4	Cotton lint	60.4	Cattle	61.9	Cattle	64.4
	Cattle	21.8	Cattle	21.5	Cotton lint	34.0	Cotton lint	30.6
	Beef veal	6.5	Beef veal	12.3	Goats/sheep	2.8	Goats/sheep	3.6
		83.7		94.2		98.7		98.6
Comoros	Vanilla	59.9	Vanilla	45.8	Cloves	81.2	Vanilla	74.8
	Copra	27.7	Cloves	25.3	Vanilla	12.5	Cloves	23.3
	Sisal	6.8	Copra	22.5	Copra	5.5	Coconuts	1.2
		94.4		93.6		99.2		99.3
Ethiopia	Coffee, green	58.6	Coffee, green	64.4	Coffee, green	69.6	Coffee, green	76.1
	Organic material	7.3	Skin and hide	8.6	Skin and hide	13.3	Skin and hide	13.2
	Skin sheep	4.7	Sesame seed	8.3	Organic material		Sugar refined	1.9
		70.6		81.3		86.3		91.2
Gambia	Groundnut products	96.6	Groundnut products	97.5	Groundnut products	84.5	Groundnut products	81.5
	Cattle	1.0	Cattle hide	0.2	Fish	12.7	Fish	4.7
	Cattle hide	0.1	-		Cattle hide	0.5	Cotton lint	2.3
		97.7		97.7		97.7		88.5
Guinea	Coffee, green	31.9	Coffee, green	26.9	Coffee, green	28.4	Coffee, green	42.4
	Cattle	23.5	Pineapples	16.6	Cattle	22.2	Cocoa beans	22.8
	Palm kernels	10.4	Palm kernels	12.4	Cocoa beans	21.1	Cattle	22.5
		65.8		55.9		71.7		87.7
Guinea-Bissau	Groundnuts (nuts)	33.8	Ground/cashew nuts	73.9	Ground/cashew nuts	39.8	Ground/cashew nuts	58.2
	Palm kernels	25.6	Palm kernels	17.9	Shellfish	22.1	Fish	25.4
	Sawnwood	1.7	Sawnwood	3.0	Palm kernels	25.0	Palm kernels	9.1
		61.1		94.8		86.9		92.7

ANNEX TABLE 6. LDCs' MAIN AGRICULTURAL EXPORT COMMODITIES AND SHARE ON TOTAL AGRICULTURAL EXPORTS, 1961, 1970, 1980 AND 1986 (continued)

Country	1961	(%)	1970	(%)	1980	(%)	1986	(%)
Haiti	Coffee, green	52.7	Coffee, green	63.9	Coffee, green	80.5	Coffee, green	76.2
	Sugar, centrif. raw	19.6	Sugar, centrif. raw	11.9	Sugar, centrif. raw	5.7	Cocoa beans	6.7
	Molasses	2.7	Cocoa beans	4.5	Cocoa beans	4.0	Sugar, centrif. raw	6.0
		75.0		80.3		90.2		88.9
Laos	Nutmeg	32.7	Sawnwood	84.7	Sawnlogs + veneer	66.6	coffee, green	56.5
	Sawnwood	21.8	Coffee, green	8.7	Sawnwood	21.9	Sawnlogs + veneer	40.3
	Organic material	19.1	Cotton lint	5.6	Coffee, green	11.4	Nutmeg	2.1
		73.6		99.0		99.9		98.9
Lesotho	Cattle	50.5	Cattle	63.8	Wool, greasy	35.1	Hair fine	37.3
	Wool, greasy	36.7	Wood, greasy	13.6	Cattle	32.7	Cattle	29.7
	Hair fine	5.4	Hair fine	10.3	Hari fine	23.0	Wool, greasy	27.9
		90.6		87.7		90.8		94.9
Malawi	Tobacco	40.7	Tobacco	47.2	Tobacco	49.7	Tobacco	56.4
	Tea	40.7	Tea	25.8	Sugar, centrif. raw	18.6	Tea	16.1
	Groundnuts shelled	5.0	Groundnuts shelled	10.0	Tea	14.5	Sugar, centrif. raw	9.3
		86.4		83.0		82.6		81.8
Maldives	Copra	100.0	Copra	100.0	Marine products	99.5	Marine products	93.1
	-		-		Copra	0.5	Copra	0.2
	-		-		-		-	
		100.0		100.0		100.0		93.3
Mali	Groundnuts shelled	29.0	Cattle	44.3	Cattle	41.4	Cotton lint	40.9
	Cattle	28.5	Cotton lint	17.0	Cotton lint	40.6	Cattle	35.5
	Sheep/goats	15.2	Sheep/goats	9.6	Sheep/goats	9.8	Sheep/goats	13.3
		72.7		70.9		91.8		89.7
Mauritania	Cattle	50.9	Cattle	33.0	Cattle	49.1	Marine products	76.6
	Sheep/goats	40.4	Sheep/goats	29.9	Sheep/goats	35.7	Cattle	11.4
	Camels	5.0	Marine products	26.1	Marine products	13.0	Sheep/gaots	8.5
		96.3		89.0		97.8		96.5
Mozambique	Cotton lint	28.7	Cotton lint	20.3	Cashew/groundnuts	32.3	Shellfish	45.0
	Sugar, centrif. raw	13.5	Sugar, centrif. raw	15.2	Shellfish	15.5	Cashew/groundnuts	20.2
	Copra	11.1	Cashew/groundnuts	12.9	Tea	14.1	Sugar, centrif. raw	12.8
		53.3		48.4		61.9		78.0
Nepal	Sugarcane	18.1	Sawnlogs + veneer	4.8	Sawnlogs + veneer	21.7	Sugarcane	30.1
	Sawnlogs + veneer	3.5	Jute	4.3	Jute	19.7	Sawnlogs + veneer	16.4
	Jute	3.2	buffaloes	1.8	Sugar cane	14.8	Milled paddy rice	13.7
		24.8		10.9		56.2		60.2
Niger	Cattle	24.1	Cattle	35.6	Cattle	35.7	Cattle	79.8
	Millet	8.8	Millet	9.5	Peas, dry	29.9	Sheep/goats	15.1
	Sheep/goats	8.3	Sheep/goats	3.4	Sheep/goats	13.3	Onions, dry	1.4
		41.2		48.5		78.9		96.3
Rwanda	Coffee, green	86.6	Coffee, green	87.5	Coffee, green	66.8	Coffee, green	90.9
	Cattle	13.0	Tea	6.2	Tea	19.5	Tea	4.0
	Hides cattle	0.7	Cattle	1.4	Organic material	7.7	Skins and hides	3.0
		99.3		95.1		94.0		97.9
Sierra Leone	Palm kernels	50.8	Palm kernels	43.0	Coffee, green	46.0	Coffee, green	45.4
	Coffee, green	12.4	Coffee, green	26.5	Cocoa beans	37.5	Cocoa beans	38.1
	Cocoa beans	9.7	Cocoa beans	20.4	Oil palm kernel	6.3	Shellfish	4.4
		72.9	8	9.9		89.8		87.9
Somalia	Bananas	49.2	Sheep/goats	39.7	Sheep/goats	55.4	Sheep/goats	71.2
	Sheep/goats	31.1	Bananas	29.2	Cattle	19.9	Bananas	17.8
	Camels	3.4	Camels	8.9	Bananas	8.7	Camels	3.8
		83.7		77.8		84.0		92.8
Sudan	Cotton lint	52.3	Cotton lint	62.5	Cotton lint	42.6	Cotton lint	52.1
	Groundnut products	9.2	Organic material	8.9	Sesame seed	9.0	Organic material	17.8
	Sesame seed	7.0	Sesame seed	6.5	Organic material	8.2	Sheep	10.1
	Organic material	7.0	Groundnut products	5.1	Groundnut products	6.1	Sesame seed	6.1
		75.5		83.0		65.9		86.7

ANNEX TABLE 6. LDCs MAIN AGRICULTURAL EXPORT COMMODITIES AND SHARE ON TOTAL AGRICULTURAL EXPORTS, 1961, 1970, 1980 AND 1986 (continued)

Country	1961	(%)	1970	(%)	1980	(%)	1986	(%)
Tanzania	Sisal	30.9	Coffee, green	21.9	Coffee, green	35.1	Coffee, green	55.5
	Cotton lint	15.0	Cotton lint	17.3	Cloves	16.9	Cotton lint	11.0
	Coffee, green	14.9	Sisal	12.5	Cotton lint	11.9	Tea	6.6
		60.8		51.7		63.9		73.1
Togo	Cocoa beans	35.3	Cocoa beans	60.4	Cocoa beans	50.2	Cotton lint	35.9
	Coffee, green	34.1	Coffee, green	25.3	Coffee, green	30.6	Cocoa beans	27.5
	Cotton lint	8.5	Palm kernels	6.2	Cotton lint	10.3	Coffee, green	26.5
		77.9		91.9		91.1		89.9
Uganda	Cotton lint	42.1	Coffee, green	60.5	Coffee, green	98.4	Coffee, green	96.0
	Coffee, green	35.2	Cotton lint	20.9	Cotton lint	1.2	Cotton lint	1.0
	Tea	4.0	Tea	5.7	Tobacco	0.2	Tea	0.6
		81.3		87.1		99.8		99.6
Vanuatu	Copra	71.5	Copra	44.3	Fish	53.9	Fish	44.9
	Cocoa beans	5.5	Fish	43.1	Copra	29.7	Copra	26.4
	Coffee, green	2.4	Cocoa beans	3.6	Cocoa beans	4.8	Cocoa beans	11.2
		99.4		91.4		88.4		82.4
Yemen Arab Rep.	Cotton lint	28.5	Cotton lint	4.6	Cotton lint	40.9	Pastry	71.3
	-	-	-	-	Pastry	21.0	Cotton lint	8.1
	-	-	-	-	Sugar conf.	11.3	Hides NES	8.1
	-	-	-	-		73.2		87.5
Yemen, P.D. Rep.	Cotton lint	15.9	Cotton lint	26.3	Shellfish	52.5	Marine products	36.7
	Coffee, green	15.0	Fish	10.2	Cotton lint	25.4	Honey	10.1
	Cigarettes	9.0	Coffee, green	7.2	Tobacco	5.5	Organic material	8.5
		39.9		44.2		83.4		55.3

Note: Totals may not add because of rounding.

Source: FAO.

Annex Table 7. LDCs. Agricultural Net Barter Terms of Trade, 1981-87 (1980 = 100)

Country \ Year	1981	1982	1983	1984	1985	1986	1987
Group I							
Kiribati	91.1	52.2	87.8	171.2	100.6	19.5	41.8
Cape Verde	69.9	122.0	117.2	66.7	95.5	138.7	140.2
Burma	114.2	86.0	81.8	82.8	80.3	61.8	47.5
Samoa	82.4	65.5	115.4	192.4	114.0	59.7	67.7
Sao Tome Principe	69.9	68.2	77.0	99.9	80.5	69.4	79.6
Gambia	158.1	92.3	99.2	149.6	144.6	121.9	109.0
Yemen Democratic	219.9	72.9	139.0	91.8	57.4	272.7	165.7
Laos	128.4	118.3	165.5	173.3	182.6	160.6	135.3
Yemen Arab Republic	106.0	116.4	129.9	168.7	105.2	111.3	98.2
Uganda	62.6	59.8	71.3	84.3	100.1	94.3	60.1
Botswana	133.0	111.3	119.4	122.1	103.8	103.4	95.7
Togo	64.0	63.7	66.5	114.3	94.2	72.9	59.6
Group II							
Malawi	102.2	117.2	79.2	102.2	79.3	73.1	97.7
Niger	115.4	154.0	117.5	121.1	115.7	166.3	164.0
Vanuatu	77.4	69.2	111.4	174.5	124.7	45.7	72.8
Lesotho	98.1	104.5	100.0	131.3	112.1	114.1	212.0
Afganistan	92.7	91.5	107.8	138.5	96.4	102.1	96.4
Burundi	83.5	89.7	102.5	111.4	111.6	139.7	61.0
Tanzania	103.1	101.7	141.8	142.3	113.7	165.5	71.3
Group III							
Benin	65.7	67.7	79.9	161.0	142.2	98.3	117.6
Guinea-Bissau	131.8	104.3	113.7	153.7	188.9	129.4	119.0
Mauritania	107.8	117.7	118.6	126.4	136.2	114.1	106.1
Comoros	352.5	1395.8	406.5	106.6	449.4	759.7	421.9
Somalia	148.6	244.3	132.5	124.7	108.8	120.5	113.2
Maldives	106.4	113.0	120.4	123.5	126.9	76.7	94.5
Nepal	88.4	73.4	69.4	72.8	55.5	53.2	35.5
Burkina Faso	90.0	109.3	133.9	153.9	112.4	127.8	136.4
Mali	94.2	84.6	76.6	106.5	114.1	80.9	72.5
Bangladesh	87.3	80.0	85.8	117.7	166.8	87.8	68.3
Haiti	80.2	71.2	81.8	54.2	78.5	72.5	99.9
Group IV							
Sudan	88.8	79.1	123.3	150.5	108.5	104.1	69.3
Central Africa Rep	81.7	91.4	100.6	93.2	101.5	88.5	62.6
Rwanda	99.1	108.9	96.4	100.7	95.4	172.9	94.1
Sierra Leone	85.5	74.5	71.1	91.7	117.7	139.9	117.6
Guinea	91.8	92.8	120.4	97.3	96.3	142.7	113.6
Ethiopia	89.3	81.3	78.1	84.2	59.2	86.2	53.6
Chad	118.9	117.8	118.1	140.4	153.5	154.9	121.5
Mozambique	102.5	98.9	98.7	105.8	82.4	80.9	80.2
Others							
Bhutan	102.5	105.1	106.4	109.0	101.7	97.6	91.8
Djibouti	85.1	66.4	44.5	61.5	49.3	51.8	51.4
Equatorial Guinea	85.0	85.3	79.8	100.3	121.2	117.2	88.3
Tuvalu	67.9	62.4	120.7	277.8	277.8	86.8	107.1
All LDCs	94.1	93.0	100.2	114.8	102.5	106.3	79.0

Note: Net barter terms of trade = $\frac{\text{unit value of agricultural exports of the country}}{\text{world import unit value of manufactured goods and crude petroleum}}$

Sources: FAO; UN Monthly Bulletin of Statistics, various issues

Annex Table 5. LDCs, Agricultural Income Terms of Trade, 1981-87 (1980 = 100)

Country \ Year	1981	1982	1983	1984	1985	1986	1987
Group I							
Kiribati	124.2	67.1	86.9	283.4	152.5	13.1	48.9
Cape Verde	158.6	59.9	69.0	27.3	55.4	89.6	61.4
Burma	119.1	91.4	100.1	88.5	62.8	61.5	37.6
Samoa	51.6	64.2	104.3	123.3	83.2	48.8	42.2
Sao Tome Principe	71.0	67.4	64.3	60.5	44.6	33.7	29.8
Gambia	65.6	57.6	99.8	115.4	70.1	45.9	74.3
Yemen Democratic	54.9	68.8	118.9	67.2	80.4	61.2	49.8
Laos	28.8	478.5	572.8	787.1	892.6	451.0	152.1
Yemen Arab Republic	71.5	80.0	72.5	66.4	53.1	64.4	84.2
Uganda	71.7	105.9	116.5	136.6	143.1	124.3	83.9
Botswana	190.6	194.1	204.3	183.2	202.1	138.5	110.0
Togo	87.8	75.2	72.3	113.6	108.2	137.3	103.8
Group II							
Malawi	96.1	91.1	102.4	135.9	106.1	97.0	92.6
Niger	101.5	94.2	66.7	114.7	82.7	93.4	72.9
Vanuatu	125.7	83.5	152.1	280.5	153.0	67.3	83.0
Lesotho	97.5	98.7	129.6	132.3	76.4	39.8	10.5
Afganistan	100.1	79.9	103.8	140.5	80.4	84.1	79.8
Burndi	116.2	142.4	138.1	169.9	186.2	266.7	104.4
Tanzania	118.0	94.7	91.1	89.9	70.0	101.2	76.4
Group III							
Benin	43.8	40.0	61.9	171.0	180.9	123.5	231.1
Guinea-Bissau	148.2	132.6	118.0	246.2	162.7	138.6	128.1
Mauritania	112.5	107.7	98.3	95.8	103.2	83.1	68.2
Comoros	624.9	978.8	556.5	126.9	894.6	1216.1	292.1
Somalia	126.7	210.7	84.3	47.4	100.3	74.5	62.7
Maldives	107.3	116.0	123.6	127.8	131.4	82.2	101.3
Nepal	151.3	155.0	113.4	151.2	160.3	119.3	65.1
Burkina Faso	73.5	54.8	70.9	98.8	75.2	71.7	81.4
Mali	108.6	115.6	97.5	129.0	108.4	79.7	64.3
Bangladesh	90.8	91.8	104.0	125.3	140.9	103.2	76.5
Haiti	41.2	46.1	68.9	68.8	68.0	64.3	40.1
Group IV							
Sudan	83.6	89.4	97.3	120.9	70.8	48.7	66.6
Central Africa Rep.	82.7	91.3	91.2	78.8	113.7	92.3	53.4
Rwanda	115.7	123.2	112.8	127.1	137.0	283.4	164.0
Sierra Leone	58.8	60.4	53.2	69.5	108.3	90.0	61.3
Guinea	85.4	90.3	109.5	73.1	61.3	94.7	79.0
Ethiopia	88.7	96.1	99.4	108.1	90.6	123.2	71.1
Chad	110.3	108.0	111.1	117.3	115.6	113.8	77.8
Mozambique	91.0	73.9	46.5	36.8	27.6	30.3	35.0
Others							
Bhutan	104.4	110.2	113.6	117.5	109.8	105.3	99.0
Djibouti	82.0	87.3	119.6	132.7	155.4	120.8	129.4
Equatorial Guinea	122.6	104.2	129.7	157.6	182.4	138.3	82.3
Tuvalu	45.2	36.6	79.6	291.8	n/a	41.5	36.5
All LDCs	95.0	97.0	99.0	115.9	99.0	96.9	76.1

Note: Income terms of trade = $\frac{\text{value of agricultural exports of the country}}{\text{world import unit value of manufactured goods and crude petroleum}}$

Sources: FAO; UN Monthly Bulletin of Statistics, various issues.

ANNEX TABLE 9. LDCs, TOTAL DEBT SERVICE a/, 1980-86

	1980	1981	1982	1983	1984	1985	1986
	..... 00 000 US$						
Kiribati	...	...	...	...	...	...	...
Cape Verde	2	3	14	29	51	47	43
Burma	1 117	1 365	1 203	1 513	1 605	1 963	2 466
Samoa	45	34	29	38	46	55	57
Sao Tomé & Princ.	11	14	20	26	32	35	19
Gambia	7	25	106	73	59	21	106
Yemen Dem.	138	226	341	678	765	1 116	993
Laos	...	...	...	...	...	...	...
Yemen Arab Rep.	212	629	549	423	675	742	991
Uganda	222	583	548	773	920	460	287
Botswana	127	86	134-	237	327	484	443
Togo	463	458	430	483	742	893	1 281
Group I	**2 344**	**3 423**	**3 374**	**4 273**	**5 222**	**5 816**	**6 686**
Malawi	679	885	628	593	730	823	1 080
Niger	389	631	1 103	719	582	648	920
Vanuatu	5	5	5	5	5	5	11
Lesotho	48	44	92	210	211	182	138
Afghanistan	...	...	...	...	...	...	...
Burundi	62	54	57	75	173	232	311
Tanzania	744	773	633	568	622	610	694
Group II	**1 927**	**2 392**	**2 518**	**2 170**	**2 323**	**2 500**	**3 154**
Benin	89	100	145	243	389	224	575
Guinea Bissau	40	38	25	20	34	53	86
Mauritania	300	540	384	370	431	778	773
Comoros	3	4	10	15	26	19	18
Somalia	88	470	193	250	227	491	720
Maldives	3	6	15	42	147	78	129
Nepal	40	48	59	85	110	163	305
Burkina Faso	169	138	152	153	176	267	344
Mali	95	96	90	145	197	381	354
Bangladesh	778	1 040	1 221	1 346	1 705	2 208	2 708
Haiti	205	208	152	140	177	207	188
Group III	**1 605**	**2 480**	**2 294**	**2 669**	**3 442**	**4 662**	**6 012**
Sudan	1 039	1 445	1 145	860	522	913	553
Central African Rep.	17	36	47	178	152	133	179
Rwanda	43	43	47	75	98	154	179
Sierra Leone	402	434	111	100	187	101	143
Guinea	953	823	774	672	1 157	656	1 029
Ethiopia	341	423	544	677	843	1 047	1 768
Chad	25	5	11	3	32	75	31
Mozambique	...	...	...	...	...	...	...
Group IV	**3 025**	**3 417**	**2 831**	**2 705**	**3 168**	**3 286**	**4 070**
Others							
Bhutan	...	...	...	...	...	...	...
Djibouti	31	32	31	43	43	41	72
Equatorial Guinea	20	42	30	18	13	16	45
Tuvalu	...	...	...	...	...	...	...
Total LDCs	**8 952**	**11 786**	**11 078**	**11 878**	**14 211**	**16 321**	**20 039**

a/ Interest and principal repayments on total debt.

Source: IMF.

ANNEX TABLE 10. LDCs, DEBT SERVICE RATIOS[a/], 1980-86

	1980	1981	1982	1983	1984	1985	1986
	..... %						
Kiribati	...	...	...	...	...	...	...
Cape Verde	...	...	...	...	...	...	...
Burma	20.1	23.4	25.7	32.9	40.1	46.3	55.4
Samoa	17.6	18.6	13.2	14.1	16.8	20.4	23.3
São Tomé & Princ.	4.9	12.6	17.2	24.1	22.2	37.2	...
Gambia	1.1	4.1	13.0	9.0	6.2	2.7	11.3
Yemen Dem.	7.7	11.9	17.8	38.0	47.6	46.9	44.5
Laos							
Yemen Arab Rep.	6.0	17.3	16.2	13.9	26.9	32.9	44.9
Uganda	6.7	21.2	14.3	20.1	20.5	17.4	6.5
Botswana	1.7	1.4	2.1	2.9	3.7	5.5	4.3
Togo	8.1	9.3	9.6	13.4	19.3	25.8	32.2
Group I	**8.2**	**13.2**	**13.0**	**16.2**	**19.7**	**22.3**	**22.3**
Malawi	20.3	26.8	23.5	23.2	21.4	29.2	40.0
Niger	6.0	11.7	25.9	18.0	17.6	23.0	24.8
Vanuatu	...	...	0.9	0.8	0.6	0.6	2.0
Lesotho	1.3	1.1	2.1	4.5	5.5	6.0	4.2
Afghanistan	...	...	...	...	...	...	...
Burundi	7.5	7.8	5.2	7.2	14.4	18.0	19.0
Tanzania	10.5	8.5	11.9	11.7	12.5	15.5	15.2
Group II	**9.0**	**10.6**	**13.8**	**12.2**	**13.3**	**17.0**	**19.2**
Benin	4.0	5.4	10.1	12.6	16.6	9.2	...
Guinea Bissau	...	...	14.4	13.4	13.6	40.5	53.4
Mauritania	11.1	15.9	12.6	10.4	13.0	18.9	17.0
Comoros	2.1	2.2	4.3	6.4	24.1	9.2	6.3
Somalia	4.3	18.4	7.5	14.1	21.3	38.5	44.4
Maldives	0.5	0.8	1.9	5.5	17.4	8.6	...
Nepal	1.7	1.6	2.0	3.2	3.9	5.3	9.2
Burkina Faso	7.5	6.6	8.3	9.8	9.7	16.8	14.8
Mali	3.6	4.8	4.7	6.9	8.5	16.7	14.3
Bangladesh	7.8	9.5	12.5	13.3	15.5	17.6	25.1
Haiti	6.6	8.5	5.5	4.8	5.5	6.0	6.1
Group III	**6.4**	**9.3**	**9.3**	**6.5**	**13.3**	**16.3**	**23.6**
Sudan	12.6	18.9	16.8	10.3	5.5	11.2	7.7
Central African Rep.	0.7	1.8	2.8	11.2	11.2	8.8	9.3
Rwanda	2.4	2.4	3.0	4.7	5.4	9.1	7.6
Sierra Leone	14.5	20.3	7.2	7.0	10.7	6.3	8.2
Guinea	...	...	...	...	...	...	...
Ethiopia	5.8	7.7	10.2	11.6	13.5	18.3	21.5
Chad	3.5	0.6	1.8	0.3	2.2	7.5	...
Mozambique	...	...	...	...	...	...	...
Group IV	**12.1**	**15.3**	**13.9**	**11.9**	**12.5**	**14.2**	**16.6**
Others							
Bhutan	...	...	...	...	...	...	...
Djibouti	...	...	...	...	...	...	...
Equatorial Guinea	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...
Total LDCs	**9.0**	**12.1**	**12.4**	**12.9**	**14.9**	**17.7**	**21.1**

a/ Total debt service payments as a share of exports of goods and services.

Source: IMF.